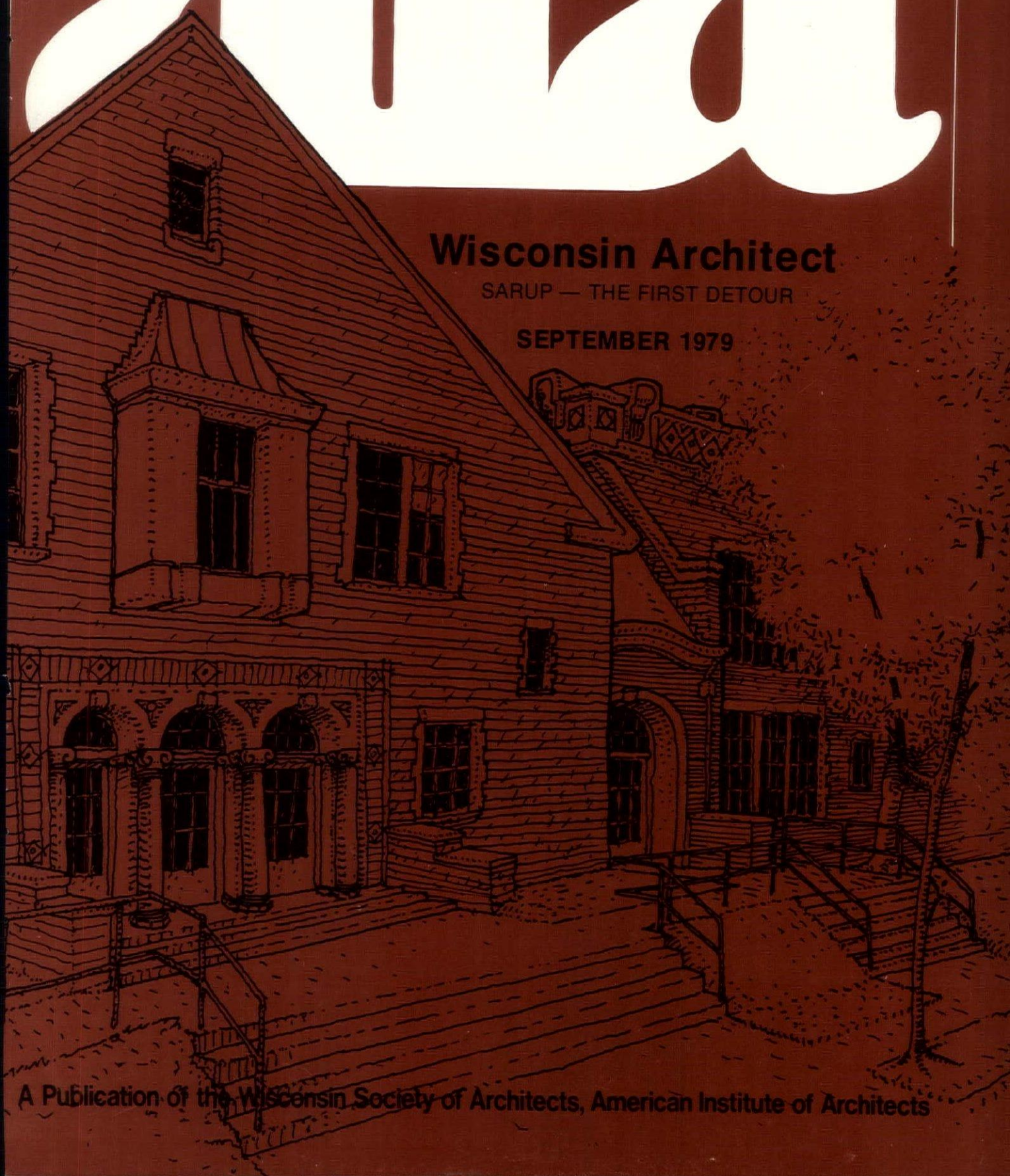


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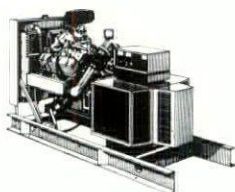
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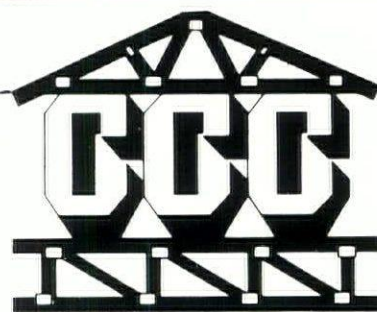
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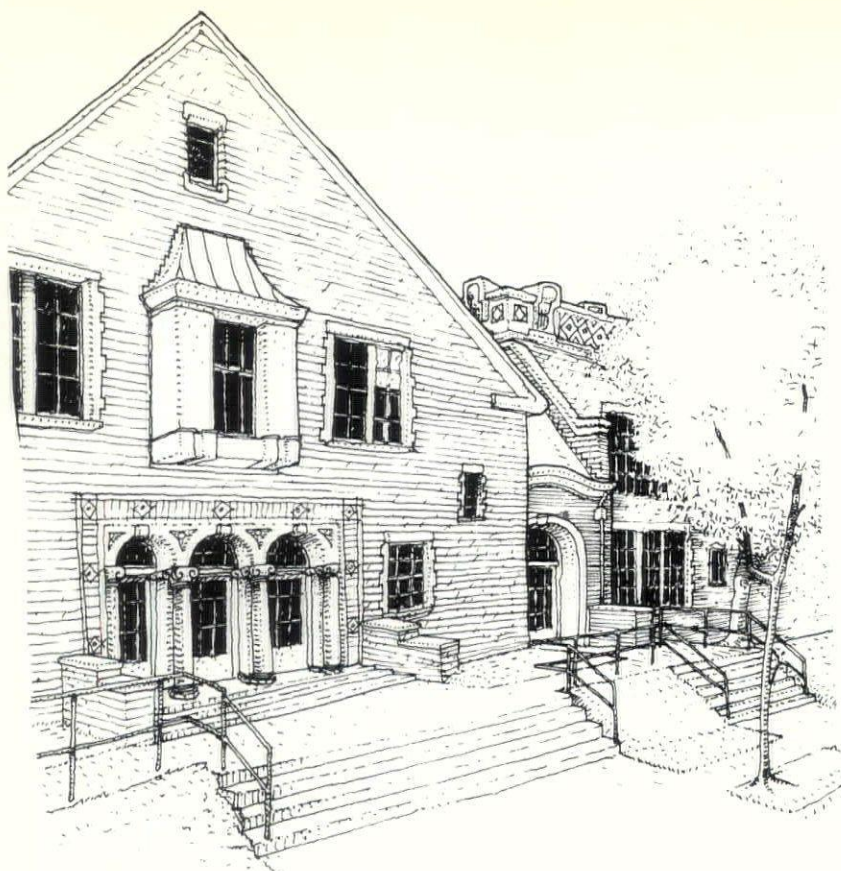
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The cover sketch by Jim Shields – as well as those throughout the magazine – are of Engelmann Hall, which houses the School of Architecture and Urban Planning.

Engelmann Hall is significant both as a representation of a specific architectural type and period, and as one of the best extant examples of the work of Van Ryn and DeGelleke. Built in the Jacobethan Revival style, it represents, along with the firm's work in the "Collegiate Gothic" style, an American architectural expression charged with the characteristics and images of academic tradition and respectability. This was the goal of the Milwaukee University School, the original owner.

M.U.S. was an outgrowth of the German-English Academy of Milwaukee, founded in 1885 and first headed by Milwaukee educator Peter Engelmann (1823-1874). The academy was directed toward Milwaukee's heavy German population, implementing the city's first kindergarten and introducing such innovations as singing, gymnastics, drawing, and natural history to the standard curriculum. A teacher's seminary was introduced during the 1870's and by 1885, the Normal School of Gymnastics was added. By the end of the first decade of the 20th century, the German direction of the school diminished and after World War I the German-English Academy became the Milwaukee University School, a more exclusive private primary and secondary school. With its move from Engelmann Hall in 1964, M.U.S. merged with the Milwaukee Downer Seminary and Milwaukee County Day School, forming the current University School, Milwaukee. Upon the purchase of the building, the University of Wisconsin-Milwaukee made various uses of it until 1972, when preparations were made for the School of Architecture and Urban Planning, its present occupant.

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The School of The Architecture University of & Urban Wisconsin Planning Milwaukee

This issue of the **Wisconsin Architect** is devoted to the School of Architecture and Urban Planning of the University of Wisconsin-Milwaukee in recognition of its tenth anniversary.

The following articles, written by a professional colleague and various faculty members, include a story of the school's origins, a brief history of the school, a look at energy, research, environment-behavior studies, the development of professional skills, the school's new pre-architecture program, management of the building process, design, the Department of Urban Planning and, lastly, a look to the future.

This looking back and forward is done as the School enters its second decade, with both a diverse faculty and a growing enrollment. The Department of Architecture currently has 354 students enrolled

in Level 1 (pre-architecture), 212 students in Level II (junior and senior) and 116 students in Level III (60 as two-year master degree candidates and 56 as three-year candidates, who have entered the program with undergraduate degrees in other disciplines). The Urban Planning Department currently has 45 students enrolled as Master of Urban Planning candidates.

The faculty in Architecture totals 25 full time appointments, 5 adjunct positions and 5 visiting professors, while Urban Planning has 6 full time appointments and 4 adjunct professors.

A remarkably large percentage of the students completing the Master of Architecture, which is the professional degree, have sought and achieved employment with architectural firms in Wisconsin and around the country. Others have

chosen related activities in construction, teaching, government service, graphic/product design and business. Master of Urban Planning graduates have successfully entered the field in both the public sector and with planning consultants.

It is the intent that the material presented in this issue will provide insight into the curriculum as well as indicate some of the relationships among the School of Architecture and Urban Planning, the profession and the community.

Douglas C. Ryhn



A Story Of The School's Origins

Mark A. Pfaller, FAIA

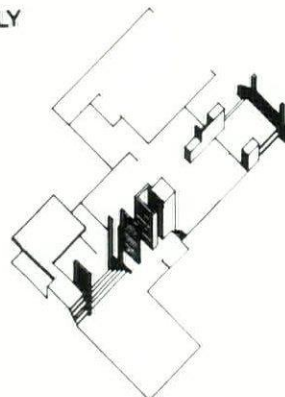
"A Course in Architecture. Should the university have a course in architecture? After talking with several architects and with some university professors, we have decided that the university should have a school of architecture, but not until several years to come . . . We must first have an engineering building and let it be made large enough to accommodate a school of architecture when the time for its establishment arrives." Excerpted from an article published in **THE WISCONSIN ENGINEER**, University of Wisconsin Student Magazine — July 1897!

For many years, less than energetic attempts were made for the establishment of a school of architecture. It was not until June 1951 when a group of architects, headed by Fritz von Grossman, invited Roy Childs Jones, the Head of the School of Architecture at the University of Minnesota and then President of the National Architectural Accrediting Board (NAAB), to meet with Wisconsin architects and community leaders. Mr. Jones' report, dated July 12, 1951, candidly admitted that "A new School of Architecture in Wisconsin is too large a question to permit more than nibbling at its edges in a single evening's discussion."

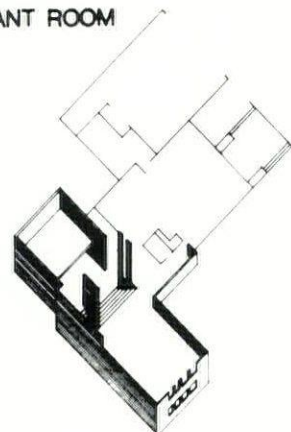
Those early energies were soon expended. A serious move to reactivate interest was not made until 1958 when a special Study Committee of the Wisconsin Chapter AIA, headed by Karel Yasko, produced a survey which developed the feasibility and need for a School of Architecture. Sporadic brush fires continued to flare up, pretty well extinguishing themselves by 1960. However, the Wisconsin Architects Foundation, established in 1953 for the purpose of distributing funds to assist deserving Wisconsin architectural students matriculating in other states, exerted efforts in different directions, pointing to a need for a School of Architecture. One direct achievement was the establishment of the State of Wisconsin Tuition Reimbursement Program (STATS 36.16) in 1963. In 1965, WAF made an impassioned appeal to the Board of Visitors of the University of Wisconsin for the establishment of a school. This was spearheaded by Fred Schweitzer and his sister Dorothy, then Executive Director of WAF. It fell on deaf ears.

It was a time to coordinate and concentrate the diffuse activities of various proponents. So on August 16, 1966, Joe Durrant, then President of the Wisconsin Chapter, formed a Coordinating Committee

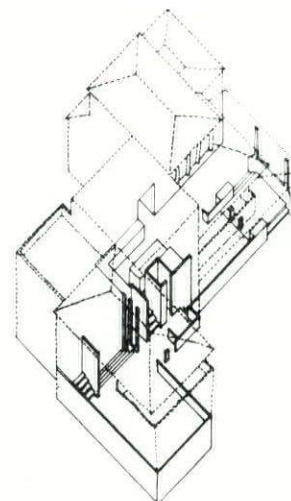
ASSEMBLY



IMPORTANT ROOM



IDEA



Mark Helminiak

on Education. This soon became known as the Ad Hoc Education Committee. Allan Strang and Bill Wenzler were named to this Committee, which was chaired by Mark A. Pfaller.

After sorting out the pieces and collecting the facts, the committee made contacts with legislators, educators, the Coordinating Committee on Higher Education (CCHE), and the Governor. Successful inroads were made in the Plans and Policies Subcommittee of CCHE and CCHE staff. Harlan McClure, Dean of the School of Architecture at Clemson and President of NAAB, was retained as a consultant. Our initial report, "The Need for a School of Architecture in Wisconsin" dated December 1966, led to CCHE Working Paper No. 107, of the same title, which was distributed to legislators and largely disseminated.

Working Paper No. 107 was approved by CCHE and the Committee's statement, published in the **Milwaukee Journal**, December 8, 1966, was that "courses will begin in 1967 if the proposal gains approval in the Legislature."

Several universities desired the school to be on their campuses, notably Platteville and Stevens Point. With pressures brought to bear from various institutions,

CCHE withdrew its approval on December 13 — "for further consideration." On January 16, 1967 MSOE shelved its plans to develop its own school.

The Ad Hoc Committee kept busy and produced, with Harlan McClure, "A Comprehensive Architectural Education Program for Wisconsin," which led to CCHE's Working Paper No. 5, dated February 1967. This led to ultimate approval of the School which had yet to be legally approved by the Legislature.

The Ad Hoc Committee continued working with CCHE on curricula, budget hearings and legislators and a successful conclusion was reached. The program would start at UW-M in the Fall of 1969 with 2-year feeder courses from five State Universities. Structure changed as time went on and the School was accredited by NAAB in June 1974, at which time the Ad Hoc Committee was disbanded.

The Ad Hoc Committee continued to serve until accreditation and called upon the services of many architects. It is impossible for me to recall all of them, but among them were Mike Meyer and George Schuett (who were later added to the Committee), Joe Durrant, Larry Bray, John Jacoby, Shel Segel, Roger Herbst and others, I'm sure.

The First Decade, 1969-1979

Robert M. Beckley, AIA

Chairman

Department of Architecture

The Beatles, Woodstock, Vietnam, One Giant Step for Mankind, LBJ, Dylan, Baez, Earth Day, Pot, Nixon, Watergate, Equal Rights, Feminism, Gay Rights, The Middle East, Energy, Oil, Inflation, Skylab. The School was born in a fitful time, for 1969 saw a country divided. That turmoil spilled over into the University. Before the first year was out, our students were on strike.

Ninety-three students enrolled for classes that first year to study with seven faculty recruited by John Wade, lured to Milwaukee from every conceivable geographical area, with different educational backgrounds, separate professional outlooks and diverse skills and interests. They were drawn to UWM by one thing — the promise of a new and innovative architectural program in a major urban setting. That they got. It was two years later in a "Manifesto" published by the School that Wade captured the direction the program would take:

- Design must be holistic
- Design must be vital
- Design must be humane
- Design must be competent
- Design must be sensitive
- Design must be service-oriented

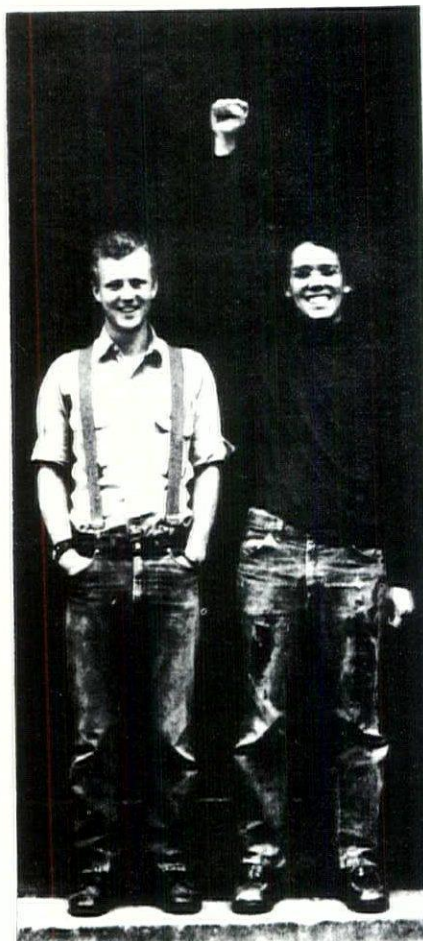
The School was a long time in the planning stage and its existence owed a lot to the advocacy of the architectural profession in the

State. The first year's students included many people who had waited several years for the School to open its doors. Returning Vietnam Vets mingled with students who were enrolled in the University to stay out of the War. Former Peace Corps volunteers shared courses with students who had never traveled out of the state. People with several years of apprenticeship in architects offices sat next to others who had only a vague notion of what a career in architecture would entail.

Some people thought the new program had nothing to do with archi-

tectural design, even though the School's manifesto stressed design. The confusion existed, perhaps, because the School did not model its program after the architectural philosophy of one of the architectural gurus of the day. The School, instead, was structured around an educational philosophy. That philosophy stressed the architect's role in integrating and synthesizing knowledge. Students were to spend the majority of their time in the studio, learning how to solve problems associated with the architectural profession in its broadest context. Those problems would range from programming, design and construction of everything from furniture to large scale planning proposals.

The architectural profession itself was not a model of stability during the weaning of the School. The profession was in the midst of re-defining its role and expanding its services before being hit by a major recession. During the student strike in Spring 1970, some of the University Regents demanded that students return to school to resume their "training" and assume their rightful roles in society. But in this time of uncertainty in the profession, the School saw its function as educating people to help the profession define an uncertain future. As we enter our second decade, that future is no more certain.



During the first decade of the School, the Museum of Modern Art created the New York Five, the White school, followed in L.A. by the Silvers and in Chicago by the Seven. **Learning from Las Vegas**, by Venturi, Scott Brown, et. al. forced us to "re-think" the commercial strip. Pei was having trouble keeping glass in the John Hancock Building in Boston, and every architect worried about his liability insurance. State boards debated whether or not to license architects, whether to eliminate the licensing exam or make it stronger. Meanwhile, Pei designed the East Wing of the National Gallery, one of the most acclaimed and popular "modern" buildings ever built. This, at the same time that "post modernism" caught the attention of the architectural press. Phillip Johnson appeared on the cover of TIME, FLLW's cape draped across his shoulders, peering through Corbu's glasses and cradling his new baby in his arms, the AT&T chippendale.

The first years of the 70's opened with promise. The Vietnam War was winding down, man had walked in space, new liberties had been won for minorities, environmental concerns were being paid more than lip service. Then Watergate. The nation watched in disbelief as the melodrama unfolded, life suddenly reduced from heroic to soap opera proportions. The tarnished crown



passed to Ford who himself had to face the economic recession, inflation and the first lines at the gas station. Suddenly the "crazies" running around architectural schools selling energy as the number one issue had an audience, and earth day became Sun-day.

Today gas station attendants dress in Arab garb as a form of protest; the people who live in Levittown engage in "disturbances" at the gas pump because they have no gas and cannot get to work. This, just as we have accepted Venturi's apologia for the environments the automobile has spawned. And as Voyager 2 sends back remarkable pictures of Jupiter, the Indian Ocean and Australia are bombarded by several tons of space junk from the falling Skylab, while the first man on the moon (Neil Armstrong, for the record) is seen on TV commercials hawking automobiles. And architects face the fact that there

are now as many people in the newly emerged profession called the "energy field" as there are people who call themselves architects.

What kind of architectural program would be appropriate for a period such as this? What kind might survive? What kind might thrive? Let's look at the manifesto again, DESIGN MUST BE . . . HOLISTIC, VITAL, HUMANE, COMPETENT, SENSITIVE, SERVICE-ORIENTED.

The first ten years at the School have been an exercise in defining that theme. In its first four years the School grew dramatically, starting with close to a hundred students and seven faculty and adding a like number in successive years. The first year's group were the pioneers (or guinea pigs, depending upon one's point of view). Most graduated with M.Archs in 1973, some dropping off with Bachelors degrees in Architectural Studies. After a year on the downtown campus, we moved first to Holton Hall, quickly proceeded by expansion to Johnston Hall, then space cramps and a move to Engelmann Hall, with satellite buildings on Maryland Avenue (soon to be torn down). This fall we expand to Marietta House on Lake Drive. Applications this very moment are being made for an "energy addition" to Engelmann Hall as a demonstration prototype.

The School has moved as frequently as the average American family.

In this same short time we have become active in the community, having students work in collaboration with various planning agencies, during the heyday of advocacy activity, helping to set up Community Design Centers in the Black and Spanish-speaking communities. More recently we are at work on "small towns" throughout Wisconsin with continued advocacy work with neighborhood and city revitalization groups.

The urban planning program was spawned in 1975 after several years of preparation and the School changed its name, structure and Dean. Departmentalized, the School took on new character. The Urban Planning program was accredited quickly with a two-year masters program, just as Architecture gained a full five-year accreditation following its first accreditation review in 1974. John Wade stepped down as Dean, having brought the School through its first phase. Tony Catanese took up the responsibility for developing the School to maturity.

The basic tenants of the architecture program have remained the same for a decade. The faculty and

staff, which has grown to some sixty people, see a professional design education as being a liberal education, with continued emphasis on integrating knowledge from various fields and synthesizing that knowledge to solve problems of the physical environment. The program is structured in two year increments. The first two years are designed to develop a strong liberal arts background with emphasis on communication skills, including English, math and graphics and the natural and social sciences. The second two years provide students with a broad introduction to the architectural field with exposure to design, programming and implementation of problems ranging from furniture and graphic design, building design, to site planning and urban design. The last two years lead to the professional degree, Master of Architecture, and allow students to sharpen their basic skills or to broaden their breadth of interest. Separate admission is required to each level and admission requirements become progressively more demanding.

While the 2 + 2 + 2 program is still our basic program, there has been continued examination of how best to meet our educational objectives. One of the earliest developments

was the three-year graduate program for people with undergraduate degrees in other disciplines. This change was instituted to support our belief that students should be able to enter an architectural program at different stages of their intellectual development. A core program was adopted in architecture in 1976 and is continually being refined. The core assures students of a broad introduction to the field of architecture and environmental design. Most recently a program including studio work has been structured for freshmen and sophomores, to help them test their aptitude and desire to pursue an architectural education before making a total commitment to an architectural program. A Ph.D. program in Architecture has been tentatively approved and is going into its final stage of development. This program will help us to fulfill our commitment to research and scholarship in architecture. It will be one of two doctoral level programs in the Midwest and one of only a dozen active programs in the U.S.

The most frequent criticism of our program has come from practitioners who have hired graduates of our Bachelors program, students who have not completed their professional (Masters) degree and



hence are ill prepared to assume professional roles in offices. To rectify this problem we will be changing the name of the undergraduate program so that the non-accredited, non-professional degree Bachelor of Architectural Studies received at the end of 4 years of study is not confused with the professional degree. It has never been our expectation that students with this degree are prepared to enter an architectural office to pursue a professional career, though many are prepared to assume an apprenticeship. We have also been improving our counseling efforts and are more rigorously enforcing our admission and retention requirements.

Our students have achieved a high level of excellence and they have proved that they can compete with the best students nationally. Recently our students have won or shared honors in national competitions far ranging in scope, including the design of office facilities for the General Services Administration, an urban design plan for a town in Illinois, energy conserving housing for the AIA Research Corporation and a half-way house for adolescents.

Our program thrives on diversity and has sought to prepare students

for diverse careers. We have done that. In our tenth year we have 177 alumni with graduate professional degrees. They are employed from New York to San Francisco in a variety of occupations we could not have imagined. Many have gone the traditional route and are successfully working in responsible areas in architectural firms. Some have already established reputations as designers or are working with nationally established design firms in Milwaukee, New York, San Francisco, Houston and Minneapolis. Some have gone into research, management or education. Three alumni are presently teaching in established architectural programs. Another has been made Vice President of a major construction firm; yet another is in charge of planning and construction for a major corporation in Milwaukee. Another has worked for the AIA Research Corporation and now has his own research firm in Washington D.C. Most important is the fact that the graduates from our professional degree program are quickly gaining recognition as professionals. They are knowledgeable and mature individuals, able to make decisions about a broad range of careers, and able to exercise intelligent judgments. While the world in which our graduates practice will undoubtedly change as dramatically

in the next ten years as it has in the last ten, we expect architecture students will, in the future more than ever, need a program that educates as well as trains them in the **professional** role of an architect in the broadest sense.



lotte Sobel
nsin architect/september, 1979

Energy and the Architectural Forum

Scott Johnston

Energy and Buildings Research Institute

Possibly the greatest challenge of our professional lives as educators and as practicing architects will be to respond in a creative manner to the changing role of energy considerations in the evolution of the architectural form. In this respect it is best to think of the current energy situation not as a discrete problem to be solved once and for all, or more histrionically as a crisis, as the media often portrays it, but as a transitional era. Indeed, it is an era in which a key variable affecting virtually every facet of our lives will undergo exponentially escalating changes in value.

The solution of multi-variable problems is the nature of our occupation as designers. The issue of life cycle costs and the problem inherent in anticipating the long-term implications of current decisions are not new to us. What is new is the pervasive but often subtle way in which energy considerations will come to bear on the architectural decision-making and ultimately on all the forms generated by that process. The immediate implications of this transitional era are already becoming apparent. Professional magazines and journals are replete with advertisements barking the code words "energy efficient" in the name of their product. As a testament to the importance of conservation in building design, all the draftspersons in a large architectural firm in North Carolina know how to calculate heat loss and regularly do so in the course of developing the preliminary wall sections. These signs are, however, only the first ones, and as such are as characteristically short-sighted as they are important. They represent changes in dimension, not changes in the nature or structure of the parts. Herein lies the key to the future of the architectural form and the excitement of participating in that future.

For example, a small concrete block manufacturing firm had developed and was trying to market a new masonry unit that resembled brick but was made by a process similar to concrete block manufacture. Since the brick-like units did not have to be fired in the manner of regular bricks, the potential existed for considerable energy savings in its manufacture and subsequently cost savings in buildings where the product would be used. In addition, the units were designed with longitudinal voids which could be factory fitted with rigid insulation. The actual configuration of the concrete bricks, however, lacked the flexibility of conventional brick construction, entailing considerable dimensional planning and coordination for the architect as well as requiring a new masonry skill. The initial assumptions of the manufacturer were valid. The manufacture of bricks is an energy-intensive process that will cause the unit price of brick to rise at a rate that is considerably higher than the normal rate of inflation or the average price of other building materials. At the same time, the durability and appearance of brick in both traditional and contemporary designs will guarantee a market for it long past the point at which it can be economically justified. Although the development of a brick substitute might have seemed slightly premature at the time, the eventual failure of the product and the company that developed it resulted not from poor timing but from failure to recognize the product's significance. While the project had considerable merit from the standpoint of energy conservation, it represented an entirely new approach to masonry construction. With its own horizontal and vertical modular coursing, the system required widespread changes in the construction processes and in the dimensioning of associated building components.

At the risk of lending undue significance to the above story, it does indicate the kind of problems that architects, engineers, manufacturers, and product researchers must address collectively in the coming decade. The nature of construction materials will have to change in response to changes in costs and availability of energy supplies. Changes in the shapes of fabricated building materials will require rethinking the structural combination of building material and the process by which these building systems are erected. An incorrect assumption as to the appropriateness of a proposed material at the beginning of this chain of events could easily result in the development of a product which does not meet the needs of the design profession or is unacceptable to the construction industry. The evolution of the built form that is destined to be the consequence of changing energy patterns will require a collaboration of effort and expertise unprecedented in the history of the building profession.

The School of Architecture and Urban Planning at UWM recently participated with a local manufacturer in a federal grant application proposing to develop a passive solar system for manufactured buildings utilizing precast concrete parts. In the process of laying out team tasks, it became apparent that one important contribution to the project would come from the supervisor for wet cast operations, sometimes referred to in the industry as the "mold man." While the job of supervising mold set up for concrete productions always falls to a person of considerable precast experience, it is an unusual but prophetic sign that such a person is a key participant in a solar research project.

This is the essence of the problem and the solution. Total changes in the nature of building systems will

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require involvement of all the participants in the building design and construction process. To date, research and product development efforts in the area of energy conservation and architectural applications are isolated and often not well coordinated. Some projects, however, such as the collaborative efforts of the Department of Architecture at MIT and several research and manufacturing organizations, serve as models of the integrated design approach that is needed. A team was assembled to provide the necessary expertise to develop the overall design and the individual components for MIT solar building 5, a passively solar-heated classroom and test facility. The components included a lay-in ceiling tile system which utilizes phase change salts for thermal storage, a double glazing system with inverted concave reflective blinds for natural lighting and reflecting sunlight to the ceiling storage tiles, and an interior glazing product called heat mirror. Heat mirror is one example of the new materials which will revolutionize the building industry. Ordinary window glass transmits sunlight or short wavelength radiation but stops heat or long-wave radiation as it tries to escape from heated spaces. Absorbed by the glass, this heat is conducted through the glass and lost to the cooler outside air. Double glazing is an effective but expensive way to put an air space outside the warmed inner glazing and thus slow the flow of heat to the outside. Heat mirror is a plastic, that like glass, is optically clear and transparent to solar radiation, but, unlike glass, is reflective to long-wave radiation, which is returned to the interior space.

More important than the products developed or the impact they will have on building designs is the precedent set for expanding the notion of the architectural design team so that it includes such mem-

bers as chemists, plastics engineers, and manufacturing experts from several industries. While the MIT project illustrates an appropriate forum for addressing the spectrum of issues inherent in the design of low energy-consumption building systems, it also represents a consulting staff and budget that is well in excess of the resources of most architectural firms. The real challenge of this transitional decade lies not in the creation of an elite corps of energy specialists to solve our energy problems but in the development of organizational structures which will allow existing professional practitioners access to a wide range of engineering and scientific expertise.

In response to this need the School of Architecture and Urban Planning at UWM has recently formed the Energy and Buildings Research Institute. The institute offers a professional level of research to the public and private sector of practicing architects, engineers, builders, manufacturers, and govern-

ment agencies. It is the goal of the Institute to provide assistance in the following areas through the creation of interdisciplinary research and design teams.

Design and design research assistance focusing on energy issues pertinent to the architectural profession and other members of the building community.

Material and product component design, testing, and evaluation.

Active and passive solar system performance simulation.

Building thermal performance simulation to determine compliance with U.S. Department of Energy Building Design Performance Standards.

It is the long-range objective of the Institute to seek out and develop professional relationships which will provide a viable context for the future practice of architecture in an energy-altered building industry.



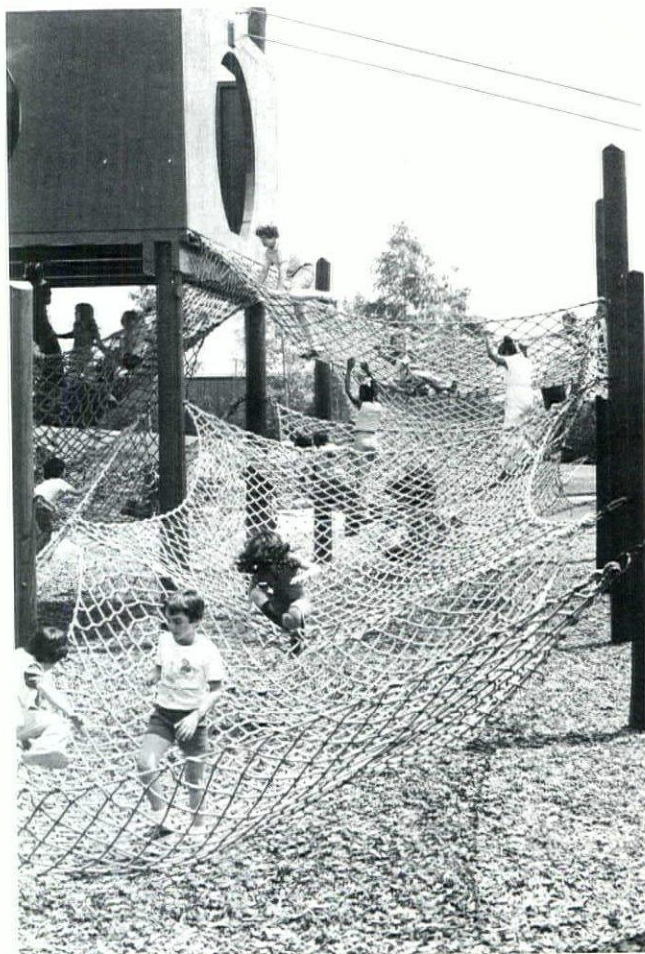
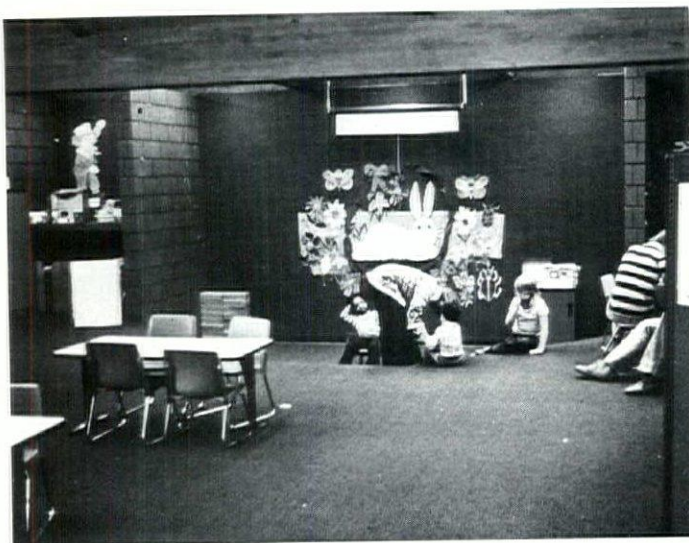
Research at SARUP

James C. Snyder

Associate Dean and Acting Director, Research Center

The School of Architecture and Urban Planning has expanded its participation in research activity over the past three years, in the belief that research is an integral part of a strong academic program. The research function is housed in the Center for Architecture and Urban Planning Research, with three components: The Environment-Behavior Research Institute, the Energy and Building Research Institute, and the Urban Planning and Development Research Institute. Projects have focused on such subjects as child care environments, energy retrofit demonstrations, policy planning for sanitary systems, and the reuse of movie palaces. Project funding levels have varied from \$5,000 to \$187,000. This work has received several national awards (**Progressive Architecture**, 25th and 26th Annual Awards Program) and led to a number of reports and journal articles. This research effort has certainly contributed to the School's growing reputation.

The School is fortunate to have a large number of faculty with highly qualified research interests and skills. About one-third of the faculty is involved with research projects at any given time. The following three articles by Professors Amos Rapoport, Gary Moore, and Uriel Cohen represent three different, but integral, emphases in our work — pure or basic research, applied research and research applications.



Pure Research In Architecture And Urban Planning

Amos Rapoport

Distinguished Professor of Architecture

My argument will be that universities generally and, hence, university schools of architecture must concentrate on what is called "pure" research, particularly scholarly research. The basic characteristic of such work is that it has long-term rather than short-term benefits. Another characteristic is that practical benefits do come from apparently unlikely and "impractical" scientific advances. For example, radio was developed because James Clark Maxwell invented a term in a set of equations which "were aesthetically more appealing with it than without it" (Carl Sagan, *The Dragons of Eden*, New York, Ballantine Books, 1977, p. 245).

One can argue that basic research — the pursuit and acquisition of knowledge for its own sake — is essential also for any applied work. In no field can applied research be done without a body of theory and knowledge which must come from basic, pure research. After all, one needs to have something to apply (e.g. see Amos Rapoport "The last (and first) ten years", *Man-Environment Systems*, Nov. 1977, vol. 7, No 6, pp. 296-299). This is particularly the case in the field of environmental design research, which is relatively new, and where there is no such body of theory at all. In fact, the search for a paradigm is originally the most urgent task. It can come only from basic, scholarly research, particularly the type which tries to make sense of both empirical research and the large body of professional work and applied research.

There are two more strong arguments in support of the need for pure research. It was pointed out some time ago (e.g. R. Abler, J. E. Adams and P. Gould *Spatial Organization* (The Geographer's View of the World), Englewood Cliffs, N.J., Prentice-Hall, 1971, p.4) that any wisconsin architect/september, 1979

discipline needs a range of activities from problem-solving in the "front lines" by practitioners, through efforts by methodologists and theoreticians, to "detached contemplation" by philosophers. These activities can be visualized as integral to a four-layered pyramid. Disciplines which concentrate on one layer to the exclusion or detriment of others find themselves in trouble. Geography, some argue, has been weak at the practice end; I would argue that the design disciplines have been composed largely of practitioners. What is needed is a much greater stress and concentration on theory and on philosophy based on research and knowledge.

Finally, one needs to ask: where can the various forms of activity within a discipline take place? Clearly practice occurs in the professions. Applied research can occur in professional offices (many calls for applied research are, in fact, answered by professional offices); it can also be carried out by specialized consulting firms, research institutes, industry and the like. The only place where pure, basic, scholarly work can occur is at the university, where ideas can

be followed wherever they lead, without "fear or favor" — and without following the dictates, requirements and constraints of applied problems. It can be argued that funded, applied research has often distorted the line of development in fields by leading to sudden shifts of emphasis dictated by applied research needs and by the availability of funds. Long-range continuity has suffered as research has followed shifting winds of fashion, "relevance" and funds.

Since universities are the only organizations available for basic research, and since such research is essential, they need to support it. If resources are scarce, such research should have the highest priority. In architecture and the other design fields, including environment-behavior studies, such basic, scholarly research happens to be relatively inexpensive. It is thus a good investment (if that is a consideration). University schools of architecture, planning and the like could not do better than to encourage, support, stress and reward such work above all other. In fact, it is their duty as academic institutions to do so.



Applied Research in Architecture and Urban Planning

Gary T. Moore

*Assistant Professor and Director,
Environment-Behavior Research Institute*

Applied research is empirical, scientific research aimed at answering specific questions and providing information required by the profession. It thus lies between pure, basic research and the application of research to particular design problems.

Some examples may make the nature of applied empirical research clear. Recently we were approached by a Lutheran church group working on prison reform in Wisconsin and asked for information on the effects of spatial design on inmates. As the research literature on this topic is almost non-existent, an applied research study was suggested. Questions included the effects of color, cell size, density, availability of private spaces, etc. on inmates' behavior. We are also often asked for information on user needs in unfamiliar building types like elderly housing, health care facilities, cardiac care units, and infant care centers. Fortunately, there is a substantial amount of research literature on most of these topics, as a brief literature search will uncover. Building evaluation from the point of view of the users — called post-occupancy evaluation — is another area of applied research that leads directly to the presentation of information in a way that architects, clients, and public officials can use it. Projects in the School have included the evaluation of four award-winning schools in Columbus, Indiana, and the evaluation of outdoor recreation environments in Milwaukee's inner-city.

Applied research has also been conducted in urban planning and in energy-related aspects of architecture. A county agency recently asked our faculty to assess a number of different urban planning strategies to combat Milwaukee's sewer problems and to recommend new policies. Encouraged by a combination of public need and requests from the profession, a team from our School has been testing a series of new energy-conscious designs, retrofits, and

technical energy-saving equipment. The results are being made available to the profession and others involved in the building industry.

Conceptually, applied research is empirical in nature; that is, it is "fact finding." It is also immediate and direct — focused on a question needing a timely answer. Unfortunately, this haste often compromises scientific rigor. Applied research, in many cases, tends to be one-off; that is, answering a specific question without reference to a larger body of research and theory. But most centrally, the purpose of applied research is to provide information where gaps exist and to provide scientific underpinnings for design decisions, which must be made daily by professionals relying only on assumptions and direct experience.

Although architecture is an art, a synthetic discipline, and a profession, there is no question that it has important scientific and technical aspects. As architects are confronted by larger and more complex problems, by rapidly changing national priorities and new information, and by issues with which they are not intimately familiar, firms are recognizing the need for reliable information on which to base design decisions. These pressures provide the impetus for much applied research.

As a result, the School of Architecture and Urban Planning, its Center for Architecture and Urban Planning Research, and the three research institutes are responding in the following ways:

1. Teaching — teaching our design students how to use the results of research in the design process.
2. Advanced Training — training advanced graduate students and professionals returning for continuing education to conduct applied research in professional contexts.
3. Research — providing a faculty and research staff qualified to take on a range of applied research projects.

Where should this research properly be done? Can it be done exclusively in the university, or should it be done in offices? It seems to me that applied architecture and urban planning research is — by its nature, by its definition — a collective venture involving the profession, research consulting firms, and the university. Any one group working alone distorts the nature of applied research. Although there is no doubt about the need for basic research and the development of integrative theory in our field, basic research alone does not answer the immediate questions facing the profession. Though professional offices know the questions they need answered, few offices have staff qualified to conduct research. Furthermore, if applied research were done only in offices, it would likely be informal and qualitative and, therefore, not "scientifically" reliable. Finally, it is clear that the few research consulting firms cannot handle the volume of research, though the number of such firms is expanding. Furthermore, they are dependent on the profession for questions and on the university for the latest research methods and basic findings. Thus it seems that applied architecture research is best conceived of as a cooperative venture.

Finally, I would argue that applied research cannot be divorced from basic research or from research applications. Basic research and theory construction give applied research its intellectual grounding, insuring that while it answers immediate questions it also contributes to the larger foundations of architecture. Research applications are the outlet for findings into the profession in a form which can readily be used. The converse is also true — basic research and research applications cannot exist apart from applied research. Research applications are just that, the applications of research data to real problem contexts. Without hard research data, there is nothing more than guesswork and hearsay opinion to apply. And basic theory construction would spin its wheels without data from particular empirical studies to guide it and give it substance. Thus, the three types of research are integral — theory accounting for data, basic research giving conceptual underpinnings to applied research, and research applications interpreting and applying the results of both basic and applied research to design.

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Research Applications to the Profession

Uriel Cohen

Associate Professor of Architecture

The third aspect of the troika of research in architecture and urban planning is "research applications." Through application of research findings to the design process, the art of design is advanced.

Programming and Design Guides

A new and vigorous line of research has been developing in the last few years which applies the results of both basic and applied research to particular building types and special user groups. The main instruments for dissemination of the new, applied information have been research compilations and, more importantly, generic building programs and design guides. Our School and faculty have been in the forefront of this national trend.

Design guides are comprehensive reports presenting the information necessary to make basic design decisions for a given building type (hospitals, schools) or for the needs

of special populations (the elderly, the handicapped). They are based on compilations of the latest research about functional, behavioral, esthetic and technical determinants of design. They interpret and apply the latest research information on the relations between behavior and space to new design guidelines. Applied research and post-occupancy evaluation are often conducted as part of the development of the guide. Design criteria are also founded on basic research done in other disciplines such as psychology, sociology, anthropology, social geography, public health, and many other areas of inquiry. Design guidelines are typically presented in the form of broad, conceptual design ideas combined with detailed, specific criteria for various parts of the building. They facilitate a more informed design process, reduce the need to rely on intuition or personal experience, and bring to light design issues and concerns that otherwise might not receive the designer's attention.

Work in the Environment-Behavior Research Institute has already led to the development of four planning and design guides for a variety of children's environments — child care centers, outdoor play environments, therapeutic play/learning environments for mentally handicapped children, and mainstreaming guidelines for schools. Others are under development.

Other Applications

Other research applications include the development of methodological tools for use in the profession, such as participatory games for use in architectural programming, trade-off games for gathering user-based information, and instruments to use for post-occupancy evaluation.

Research applications provide architects and planners with the latest research-based information and tools for use in the office, and with new methods and techniques for improving the design process.



Architecture and Human Behavior: The Place of Environment-Behavior Studies in Architecture

Gary T. Moore

Assistant Professor and Coordinator, Environment-Behavior Studies Option

Architecture is the art, which above all others, combines expression, technology, and the satisfaction of human needs. Its purpose is to make places where people feel more human, more alive, more fulfilled. It is, in Vitruvius' words, the art which combines **utilitas**, **firmitas**, and **venustas**, or human behavior, technology, and beauty.

It has long been recognized that architecture is influenced by many forces, among them those articulated by Vitruvius in the first century, B.C. But how often do we really pay serious attention to the needs of the user, to the behavioral, social and cultural determinants of design, and to the role of good design in affecting human behavior?

Let me give just two examples. One of the struggles encountered by the elderly person is to retain competency and dignity in the face of declining health and physiological abilities. To what degree can architecture influence the process of aging? Strange as it may seem, making the environment easier for the old person to get around in may encourage the elderly to become more dependent and less self-assured. How are our designs for housing, recreation centers and health care clinics for the elderly affected by this issue of dependency, and by the myriad other considerations about the effect of the environment on aging? At the other end of the age spectrum, in what ways can the design of the environment support and stimulate the development of children? There are three major areas of child development: physical, social and intellectual growth. Why is it that most buildings in which children spend time respond only to the physical growth dimension? How can our architecture respond to all three areas of development and aid in the unfolding of more fully functioning individuals?



The last time the School put together a special issue of a magazine summarizing our philosophy (**The UWM Magazine**, Summer 1971, Vol. 5, Whole No. 3), the following was noted:

On the urban scale, we are more often than not dealing with anonymous users. We cannot identify specific people of whom we can ask pertinent questions and with whom we can develop sets of requirements. The anonymity of a group of people "in the neighborhood," or with "those characteristics" makes it easy for designers and planners to ignore unique needs and characteristics. Decisions tend to be made in response to more easily identifiable forces like "city hall," or "the market." The study of various large, anonymous human groups in the city forces the student designer to consider more broadly the impact of his decisions and to incorporate into his proposals policies and programs to alleviate the suffering even of those whom we do not hear suffering. (p. 6)

The National Development of the Environment-Behavior Field

Response to this situation has emerged in higher education in two ways. Most architecture schools now have at least one or two courses on architecture and human behavior and introduce problems in the design studio which encourage students to develop skills for incorporating behavioral and cultural factors in the design process. Such courses come under the label "user requirements," "behavioral determinants of design," or, more recently, "environment-behavior studies in architecture."

The social sciences have responded to the need for more knowledge about human behavior relative to architecture and urban planning, and to the interests of students working in this field. Psychology, sociology, anthropology, even geography departments now have courses on the role of the physical environment, i.e., courses on environmental psychology, environmental and urban sociology, behavioral or social geography, urban anthropology, and so on.

The number of students pursuing such courses in architecture and in the social sciences has grown so rapidly, and the number of people doing research and professional work in the interface between architecture and human behavior has grown so large, that there is now a viable interdisciplinary field called Environment-Behavior Studies (EBS). The formal founding of the field may be traced to 1968 when several of us formed the Environmental Design Research Association comprised of architects, planners and social scientists.

The field has two aspects. As pursued in the social sciences,

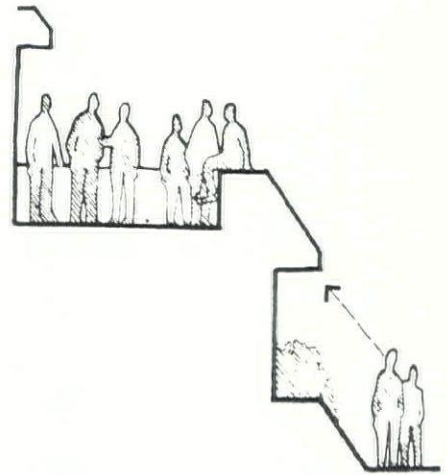
primarily research-oriented, though many students are moving immediately into consulting and professional jobs. Environment-behavior studies in architecture and urban planning deal more with applications, where students are interested in user requirements and applications of behavioral insights to the design process.

Seen from both sides, EBS may be defined as the systematic study of the relations between the physical environment and human behavior and applications to environmental problem-solving through architecture and urban planning.

Environment-Behavior Studies in the School

Since its inception in 1969, the School has been committed to contemporary approaches to insuring that future architects are sufficiently knowledgeable and skilled to create good architecture in response to human needs. In fact, it is fair to say that the School has been a national leader in this regard. The philosophy of the School has long recognized that architecture and related professions require informed, intelligent and sensitive designers — sensitive not only to buildings and facilities, but also to the people who will use them; sensitive not only to human behavior or any other single determinant of design, but to the interaction among technology, human behavior and beauty. The relationship between architecture and human behavior is introduced in the curriculum at two levels for two different types of students.

At one level, portions of the undergraduate curriculum are aimed at sensitizing all students to the relation between architecture and human behavior and to ways to design in response to environment-



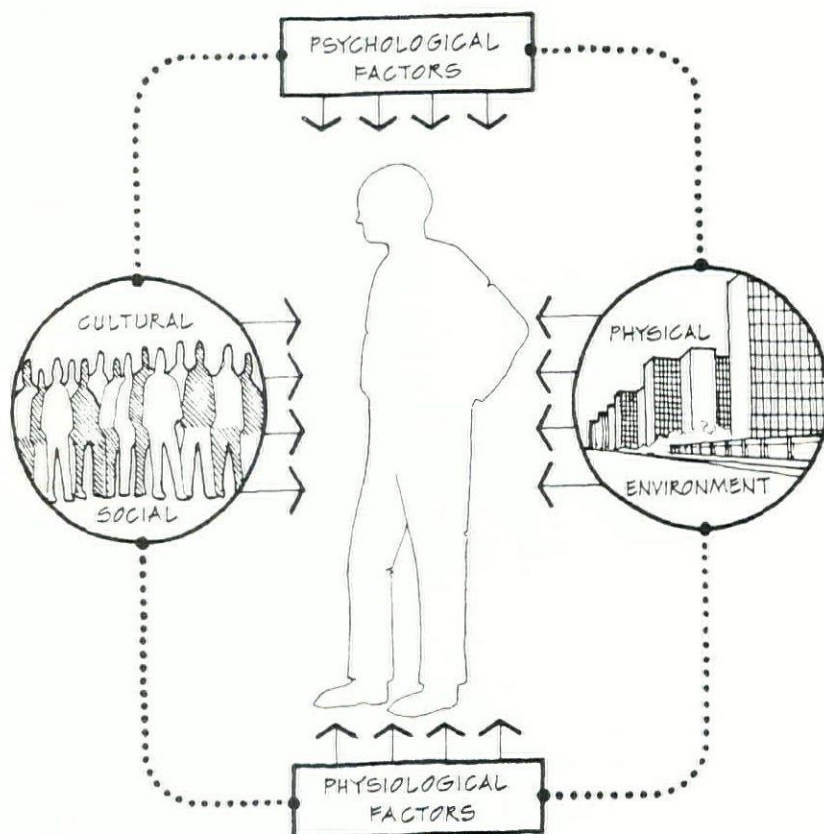
behavior information. An introductory lecture course, *Introduction to the Environment-Behavior Studies*, surveys information emerging from environment-behavior research centers around the country, ranging from anthropometrics to semiotics, that is, from data on human dimensions and the physiology of the body to considerations of meaning, image, and symbolism as the latter differ from one social group to another (see "Environment-Behavior Studies" in **An Introduction to Architecture**, J. C. Snyder and A. J. Catanese, eds., New York, McGraw-Hill, 1979, pp. 46-71). In undergraduate design studios, we take that information and show students how to apply it in the design process. Typical problems emphasize observing and interpreting spatial behavior, interviewing typical users, evaluating buildings as a way of discover-

ing how a particular building type could be designed better, and developing behaviorally based programs. The designs are then assessed not only in terms of the student designer's success in designing for human behavior, but also in terms of the richness of the data base from which he or she was working.

At a second level, the School is also committed to training those graduate students interested in the application of EBS to architecture. These students study research methods, user needs studies in office contexts, advanced techniques of architectural programming, and post-occupancy building evaluations. They develop new methods and their own personal style of incorporating behavioral, social and cultural information in the design process. This level of advanced training is accomplished through a concentration of courses, seminars, studios, independent work and theses.

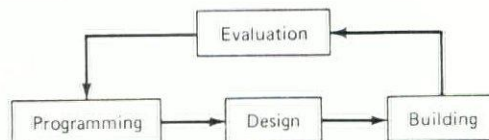
Courses in architecture and human behavior have been taught at the School since 1971. In 1975 the Department of Architecture reorganized the graduate curriculum around five areas of concentration, including the Environment-Behavior Studies Option. We now offer 13 lecture courses, seminars, and studios focusing on such topics as building design, urban design, programming, post-occupancy evaluation, research methods, and behavioral factors in health care settings, children's environments, housing, and environments for the elderly and the handicapped. There are eight faculty members teaching in the area, with backgrounds including advanced training in the social sciences as well as in architecture and urban planning.

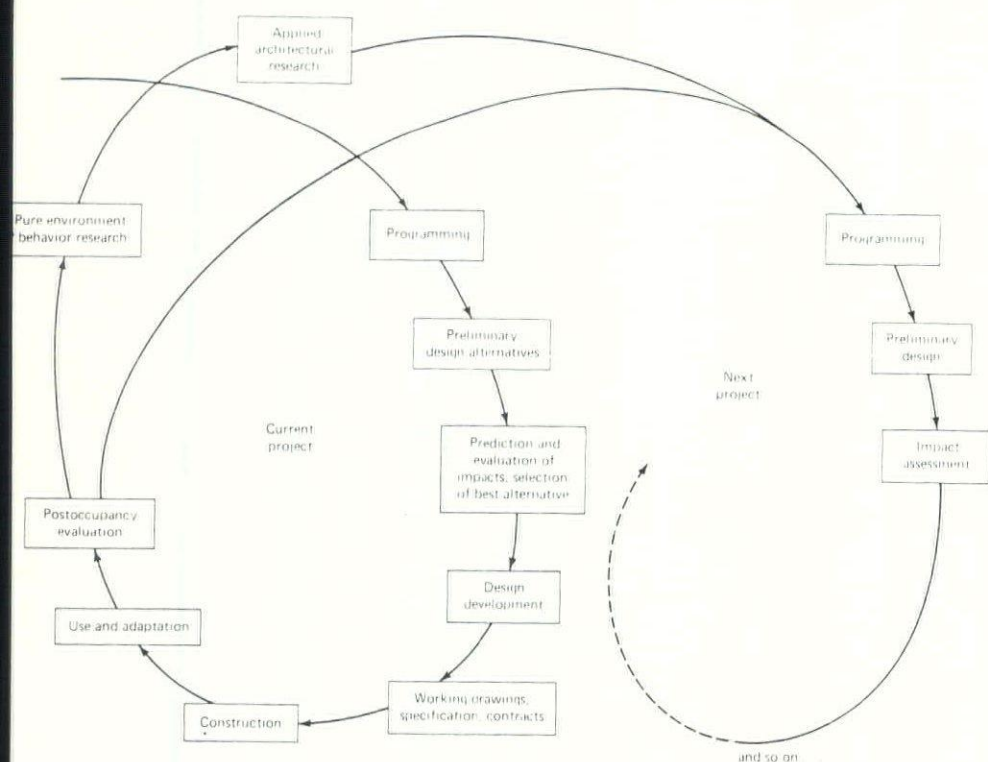
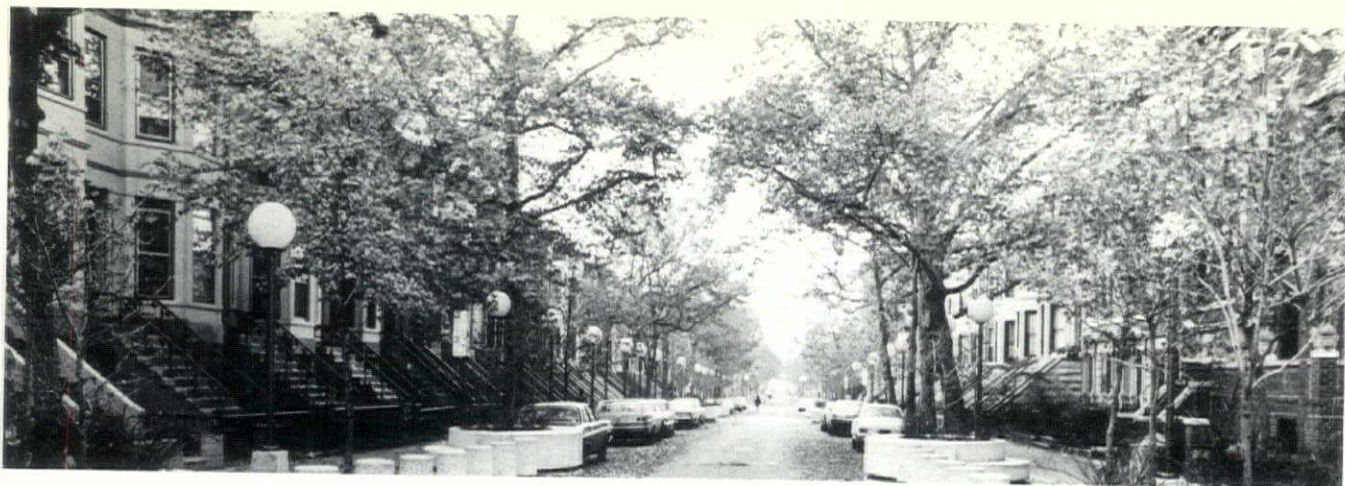
The EBS option focuses on the design process and the profes-



The building process.

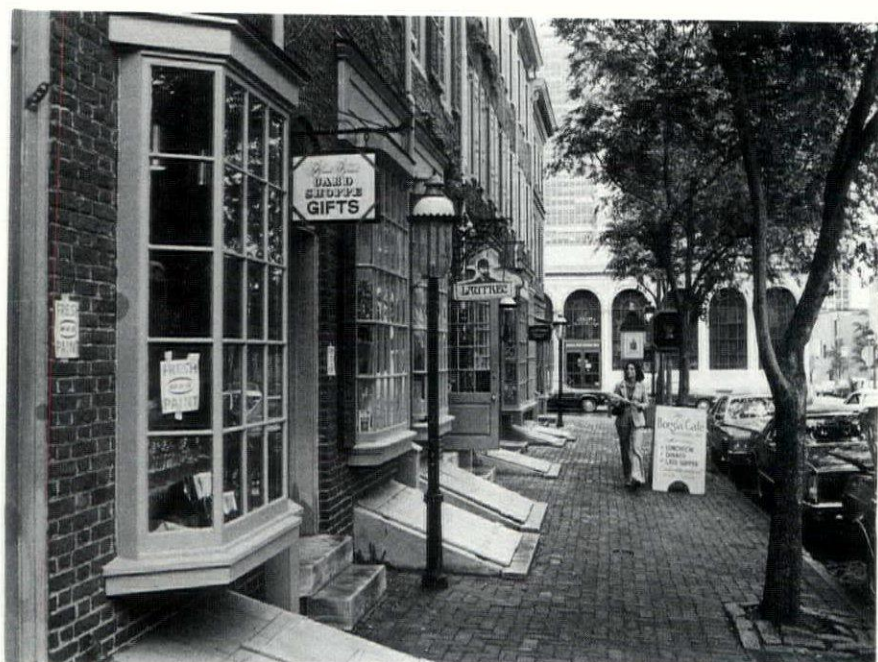
The building process with evaluation.





sional concerns of architects, but the intention is to offer sufficient diversity to provide opportunity for development in other than traditional avenues. At the present time, there are 30 graduate students in the option. Most are interested in EBS/Design and are intending to become registered architects with a solid foundation in the study and application of behavioral factors. A smaller number (2 or 3 per year) are pursuing EBS/Research and are interested in other careers in programming, building evaluation, applied research, or consulting in professional offices, government, industry, or universities. Entering EBS students are characterized in halves — half entering with design and half with social science backgrounds, half women and half men, half from Wisconsin and half from various corners of the country and overseas, including Canada, Brazil, Israel, Sweden, South Africa and Japan.

Environment-behavior studies in the design process (based on the work of J. Ziesel, 1975).



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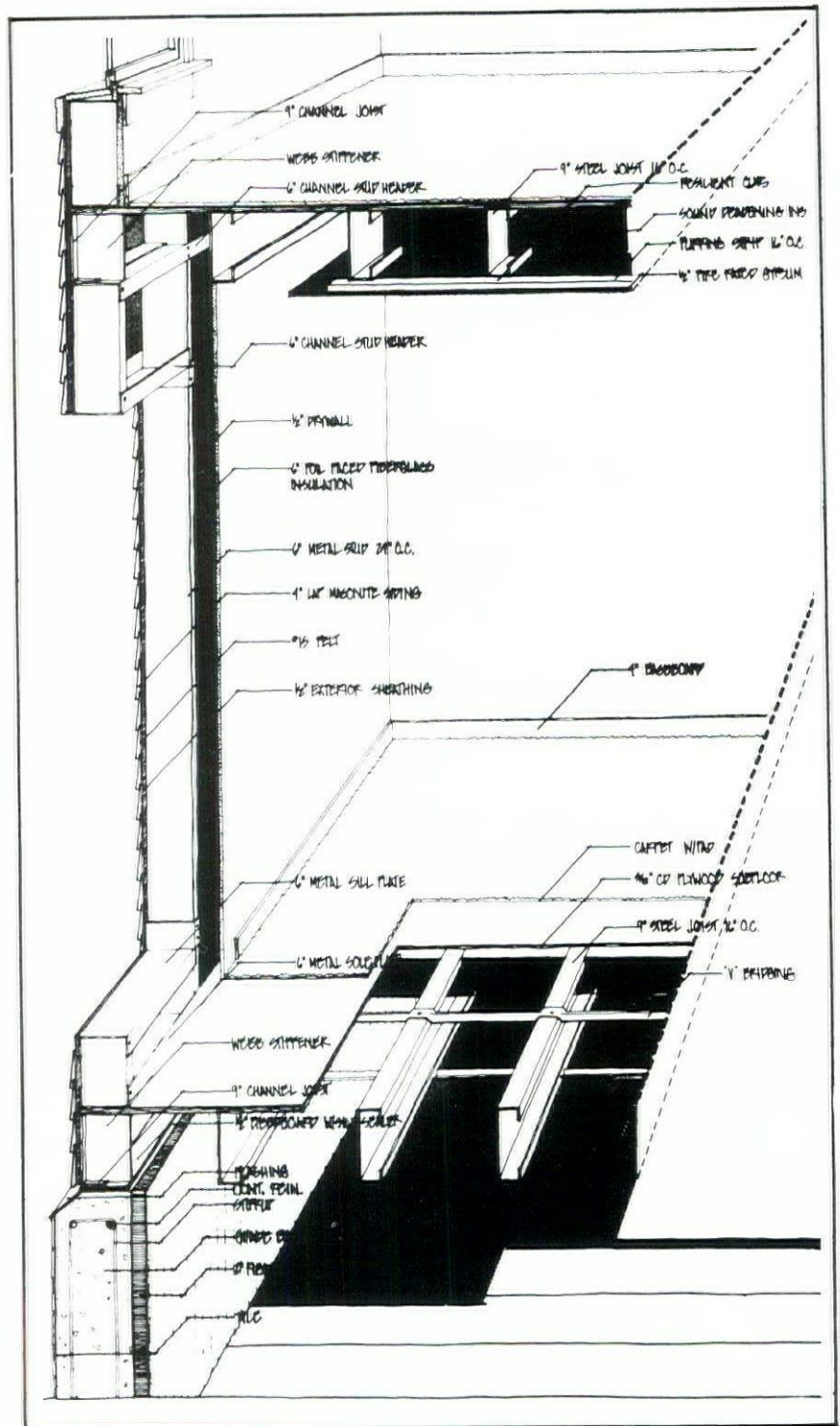
Environment-behavior studies in architecture is a contemporary approach to the traditional humanistic purposes of architecture. It is a view of design and of the environment which places the values, needs and preferences of users at the forefront of the design process. It is a philosophy of design which has as its goal the satisfaction of human needs and the elimination of environmentally induced stress. And it is founded on the belief that good design and great buildings are always ultimately judged by how conducive they are to a human existence which is alive, more human, more capable and free.

The Case for Developing Professional Skills in the University

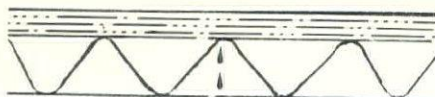
David Evan Glasser, AIA
Associate Professor

The last decade has witnessed a substantial and welcome transformation in the curriculum of most schools of architecture in the United States. Earlier preoccupation with buildings as artistic artifacts and extensions of individual architects' preceptions has been to some extent replaced by a maturing concern for the broader environment, behavioral issues, energy concerns and the preservation of our historical heritage. Few thoughtful practitioners can take serious issue with this adjustment to architectural curricula. At the same time, many professionals are concerned at the seeming lack of concern and skills for the difficult, but necessary task of putting buildings together. It is probably fair to say that a majority of architects in practice in the Milwaukee area, if polled confidentially, would prefer a diminution of theoretical course work and an increase in workshops which will promulgate professional skills.

The traditional argument of the architectural academy has been that the university is the one place in a student's career where abstract, philosophical and theoretical issues may be addressed. Practical training, it is maintained, is best done in an apprenticeship mode under the direction of concerned professionals rather than in the classroom. The substantive point is that the theoretical grounding, which precedes practical training, is that which distinguishes an architect from a technician. This point of view would be very convincing if it could be demonstrated that: a) Schools of Architecture did, in fact, provide students with a substantive, theoretical grounding in the subject areas in which they hoped to operate and; b) Professional offices did in fact provide novice architects with appropriate types of training.



Bill Williams



This phenomenon, known as a roof leak, is not a part of the original design for this building.

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Principles of overlay drafting are spelled out in a new brochure available from the Du Pont Company's Industrial Photosystems Division.

The brochure, which is designed to help engineers and architects understand and implement the concept of overlay drafting, discusses the requirements for using the special procedure. It also describes in detail the benefits of overlay drafting.



Overlay drafting produces composite drawings by the use of pinbar registration and a series of overlays. For instance, a reflected ceiling drawing would consist of a combination of the overlays for light fixtures, sprinkler heads, and air ducts. The procedure allows engineers and architects to meet complex design requirements at reduced costs. At the same time, drafting time is reduced and higher quality drawings are produced.

The brochures can be obtained from reproduction service companies or by writing R. A. BUTLER, Photo Products Department, Du Pont Company, 7415 Melvina Ave., Niles, IL 60648.

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| SEPTEMBER 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 1 OCTOBER | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 Planning & Design of Special Health Care Facilities UWEX-Madison | 9 | 10 | 11 Fall Workshop Mead Inn Wisconsin Rapids | 12 Executive Committee Meeting Mead Inn Wisconsin Rapids | 13 N.E. Chapter Celebration of Architecture Dance Appleton |

| | | | | | | | | | |
|----|--|----|---|----|---|----|----------|----|----|
| | N.E. Chapter Meeting Green Bay S.W. Chapter Celebration of Architecture Week | | | | Passive Solar Design and Construction UWEX - Madison | | 19 | 20 | |
| 21 | S.E. Chapter Celebration of Architecture Week | 22 | Energy Conscious Building Design UWEX-Madison | 23 | | 24 | 25 | 26 | 27 |
| 28 | | 29 | | 30 | | 31 | 1 | 2 | 3 |
| | | | | | | | NOVEMBER | | |
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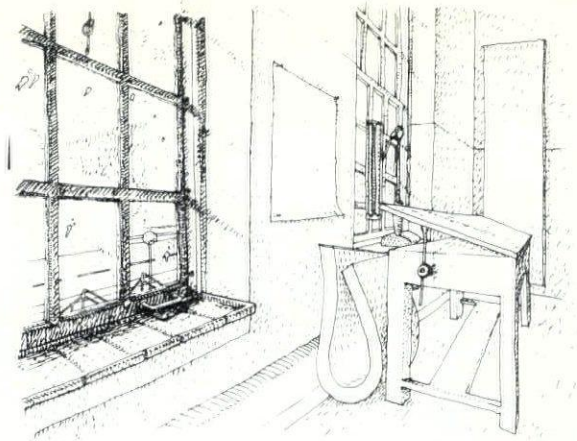


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It appears that neither has been entirely successful in providing architects with the type of professional skills needed for successful practice. The schools have had difficulty inculcating an interest in the dedicated pursuit of rigorous professional skills while the practicing offices are too often motivated by expedient business issues to be overly concerned with the conscientious preparation of their novice professional staff.

In an earlier, simpler time traditional apprenticeship under the tutelage of a master architect was an acceptable and even a desirable method to obtain professional skills and credibility. The risks of autocratic suppression by the atelier leader were more than offset by the disciplined acquisition of hard won abilities. Often, studio involvement was accompanied by a year or more of apprenticeship in one of the major trades, usually carpentry or masonry. This practice, still followed in many European countries today, attempted to provide incipient architects with the understanding that conceptual and practical skills need to be joined in the practice of architecture.

The luxury of a training such as existed at the Ecole des Beaux Arts, requiring often as much as seven or eight years, no longer makes sense. Most students of architecture are anxious to enter the profession, for pecuniary reasons, as soon as possible. Furthermore, most of the emerging issues in architecture are best discussed and evaluated in a more flexible forum than the Master's studio. It is therefore desirable for the University to provide alternative systems which can generate the kind of commitment and dedication to professional skills and attitudes.

It is clear what has happened. The late sixties produced a national

search for relevance in all our institutions and, in fact, brought about many salubrious changes politically as well as academically. The movement away from the training of narrow service-oriented professionals and/or self-seeking monument builders was well intentioned and probably long overdue. At the same time many concerns and skills traditionally taught in the schools of architecture were suppressed. In particular, the study of architectural construction, structures, environmental control systems and architectural practice began to be viewed as archaic courses pandering primarily to business-oriented architects. At this time many schools of architecture do not establish mandatory requirements for the acquisition of the skills which the State licensing board evaluates in order to protect the health, safety and welfare of the public. It is a matter of fact that a determined and shrewd student can skillfully avoid taking virtually any skill development courses and graduate from many schools of architecture with the professional degree. To the unsuspecting public it is as if a doctor were graduated with the M.D. having never taken courses in pathology or gross anatomy.

It has to be recognized that a select few architecture students are headed for journalistic, teaching or research jobs. It could be argued that for them the mandatory acquisition of professional skills might be injurious or unnecessary. However, pedagogical predilections are such as to suppose that any disciplined course of study carries its own value. In any event, it is not the exceptional student or the special case that is at issue. What concerns most architects is the lack of perception and skills on the part of many young architects with traditional career goals.

Based on our experience at UWM it is reasonable to say that the overwhelming majority of students have in mind to enter practice at some level and eventually to be directly involved in the building of buildings. Even most students opting for one of the several special programs at the school, such as energy, do so in the hope of enhancing their skill and knowledge base for future practice rather than research. It is therefore evident that it is in the interest both of the student and the professional community to strengthen the delivery of practical skills to the majority of students who need and want them.

In support of having the University take the principal role in this educational process, it is suggested that commitment and dedication be encouraged. When students start their professional education, most are idealistic and prepared to engage their interest and energies fully. Anomie and cynicism usually develop later on as thesis approaches and the hunger for real experience increases. Therefore the right time to establish excellent work habits and ingrained dedication to professional responsibilities is at the beginning, rather than at mid-career of each student's education.

The University is further in the unique position of assigning itself to be an idealistic arbiter of worldly affairs. Nowhere can this be of more advantage than in the teaching of so-called practical skills. If left to the technical colleges and most professional offices, we may be assured, such training will be narrow, technocratic and self-serving. The University may address technical skill development, on the other hand, in the context of the highest aspirations. An example may serve to illustrate the point. One of the most difficult types of

architectural personnel to find is the competent design-detailer: someone who can assemble a building competently within a design context. The offices bemoan the scarcity of architects with these skills but are not ready to invest the time to their education. The schools now emphasize conceptual design usually at the expense of the acquisition of the supporting skills needed to realize a project. Construction, if taught at all, provides students with a general background. Few schools of architecture make a point of teaching the fine art of detailing, in spite of the fact that this activity forms a substantial part of every practitioner's career.

Another area of concern is objectivity. Although building and zoning codes as well as professional ethics would seem to ensure that only first rate and sound buildings are erected, it is nevertheless true that the exigencies of the marketplace often act to reduce construction quality to levels of minimum acceptability. Regrettably, not every architect is determined to or capable of resisting the pressures of a venal or shortsighted client. The teaching of rigorous standards of architectural practice in the schools can do a great deal to counter inferior quality in design and construction. A well trained student with a solid understanding of professional attitudes and responsibilities will be unlikely to accede to substandard quality at any level.

Few offices are interested in, or perform, serious research into building products or assemblies, whereas the schools would seem to be a natural place for basic study of this kind to occur. Since scientific inquiry into the characteristics and performance of building construction is likely to develop objective standards for students, it is certain to have greater meaning than the rote acceptance of office stand-

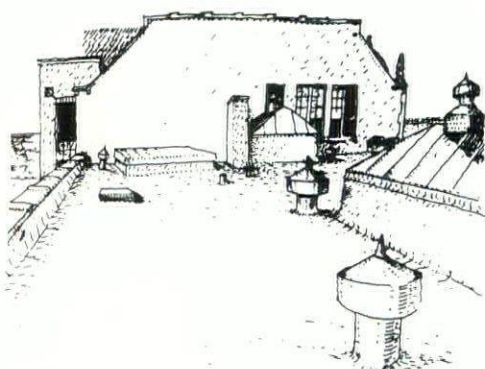
ards which passes for much current office apprenticeship. For example, actual laboratory studies of various interior partition assemblies with respect to sound attenuation will be infinitely more effective in convincing a young architect of their respective efficiencies than a multitude of data from Time Saver Standards.

Schools of Architecture must also be responsible since they are accredited by national boards which presume to ensure that graduates of each certified institution are prepared to practice in accordance with the highest professional ideals and skills. There is no question that each student, as well as the general public, is entitled to expect that graduates of recognized schools be competent and conscientious in pursuit of their duties. We have come to expect this degree of quality in all medical practitioners. The schools of medicine are very quick to dismiss students whose diligence and determination are sus-

pect. Regrettably, schools of architecture have mitigated previous high standards of performance in the mistaken opinion that the multifaceted character of our profession somehow exempts students from meeting exacting standards. As a collective profession we have reaped the rewards of our self indulgence. Many clients and most contractors view architects as necessary evils whose limited understanding of the total building process serves only to further some private artistic vision. Few practitioners, let alone students, are prepared to deal realistically and responsibly with the entire process by which a building is built. The emergence of construction management firms, programming specialists and design-build firms with captive architectural components all testify to our collective inability to establish and maintain a credible position of leadership in the construction industry.

It is time that our profession took steps to counter this unfortunate development. The schools offer the ideal environment in which to develop the dedicated values and professional skills needed to operate in this emerging market.

It is important to emphasize that the acquisition of superior professional skills or a keen sense of the architect's legal and ethical responsibilities is in no way inconsistent with high design aspirations, or any other professional objectives for that matter. The reverse is more likely to be true. Concern for obtaining the highest professional skills is likely, in fact, to extend to every area of an architect's concern. The secure knowledge in one's abilities and competence can invariably free the mind to grapple effectively with the many complex and conflicting issues which affect our work.



ARCFUN: A Course in Architectural Fundamentals

Donald H. Glickman, Professor

Francis D. K. Ching, Assistant Professor

The ARCFUN program is the newest part of our curriculum; yet, the idea of a fundamental design course has been around since the Bauhaus of the '20s and '30s, and perhaps earlier. Such programs that attempt to teach the basic principles of design have, through the years, experienced oscillations between fanatic popularity and dogmatic rejection by faculties around the world. Our school is now ten years old, and it has taken us almost that long to discuss the merits and disadvantages of a fundamental design course and to decide to test its usefulness in preparing students for an architectural curriculum. In our case, this was a decision that could hardly be described as hasty or fanatical. Much faculty time has been spent deliberating how a fundamentals program might satisfy our students' needs and the objectives of our curriculum. And as we enter the second year of ARCFUN's existence, we plan to continue to evaluate its usefulness.

We view the ARCFUN program as an integral part of a larger Level I program for freshmen and sophomores who have expressed an interest in pursuing an education and career in architecture. In the truest sense, it is a preparatory experience that offers a transition from high school to our professional program (Level II) that starts at the junior year. It gives students the opportunity, while pursuing a liberal course of study, to gain insights into the field of architecture and to acquire basic skills and perceptions that would enhance their educational experiences in the Level II program.

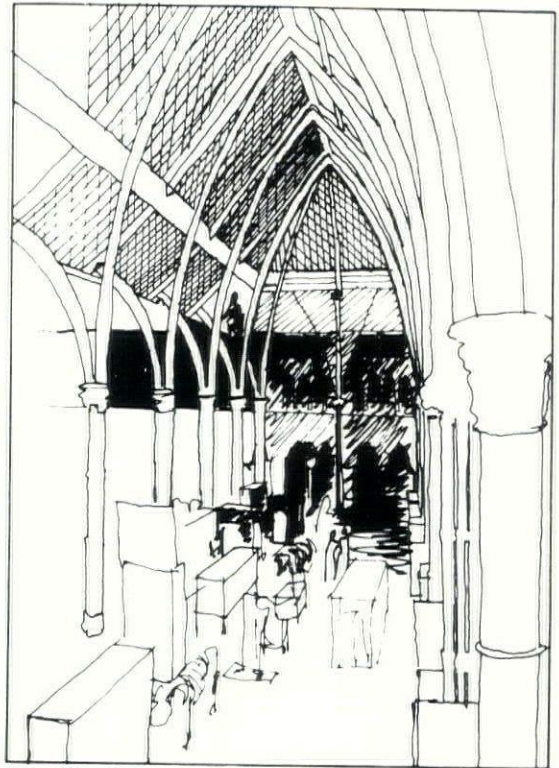
One of the fundamental perceptions we feel our students should begin to develop before entering our Level II program is a critical awareness of our environment and the relationships among its three con-

stituent parts: architecture or "built-form," the natural environment, and people. Our educational systems do not hesitate to teach students to read and write, and to listen and speak, because these skills are essential aspects of the communication process, necessary for the understanding and appreciation of our world. We want our students, however, to be literate, not only verbally, but visually as well.

Practically from birth we are exposed to a fantastic multiplicity of visual stimuli; yet, because of the limitations of our experience and education, only a small quantity of these stimuli becomes meaningful. We select out from available visual phenomena only those which our past experience allows us to interpret as useful. If our past ex-

perience is limited, then our recognition of meaningful visual stimuli is also limited, and our ability to apply visual principles in the analysis and design of our environment is similarly hampered. One of the primary objectives of the ARCFUN program, therefore, is to expose students to sets of visual experiences that will heighten their sensitivity to visual stimuli, enhance the accuracy of their observations, and expand their skills to communicate effectively what they see and understand in their environment.

The sets of visual experiences giving structure to the ARCFUN program are in the form of problems or experiments. Built into the sequence of problems are requirements that encourage the students to explore fundamental design



Claudio Veliz

principles. Rather than treat these principles purely in the abstract, however, we also require the students to relate the general to the specific and to apply the visual design principles they are introduced to in the solving of relatively simple architectural problems. In this manner, we attempt to develop the students' vocabulary of architectural elements as well as expose them to the wide range of issues they will confront throughout their architectural education.

The output of all of these design problems is a graphic presentation accompanied by a verbal statement of intent. These results indicate the students' understanding of the principles applied and the issues they were required to address. They also give the students valuable practice in developing their graphic skills — skills that are essential to designers in communicating their ideas to others, in exploring these ideas and in testing hypotheses during the design process.

In requiring our students to define solutions to architectural design problems, we are consciously introducing them to the open-endedness of the design process. One of the prevalent notions among our incoming students is that there is one correct answer to most problems, and that the instructor knows that answer. We cannot fault the students for believing this notion, since much of their education and experience reinforces it. Math problems, puzzles, true-and-false questions, etc. all tend to converge the thinking process toward the one right answer. Conflicting with this is the fact that the processes for problem-solving in architectural design and related fields are, by nature, open-ended. There are always different ways to achieve desired results, to satisfy performance requirements and to meet, and go beyond, the stated requirements of a design problem. That ability to go beyond the minimum requirements and to search for the optimum conditions requires divergent thinking: the ability to see and understand a problem from various points of view and generate various approaches towards its solution before converging on those alternatives. It is a qualitative search in which the designer is not easily satisfied. The ARCFUN program, therefore, seeks to help students become divergent thinkers with the ability to generate more than one workable solution to a design problem,



and to give them the confidence to be dissatisfied with solutions that only meet minimum requirements.

Since the majority of the students enrolled in the ARCFUN program have expressed their interest in pursuing architecture as their major course of study, we use this course to give them a sense of belonging to the school. Through contact with the students and faculty in the Level II and graduate programs, they have an opportunity to clarify their views of architecture as a course of study and as a career. In a sense, this course acts

as a screening mechanism, superior to portfolio reviews and grades, that allows students to test their motivation and abilities and to self-select without failing. It is quite possible to pass the course and decide not to continue in architecture. Obviously, it is best to help students discover as much about their capabilities and motivation as early as possible. For a senior to be unable to graduate or be inadmissible to graduate school, or to realize, after several years of architectural education, that he or she does not like the work involved can be devastating. As educators, we want to help students discover themselves, their capabilities and limitations, and to distinguish between real personal interest and family expectations.

ARCFUN is fundamental to the architecture program in introducing basic communication skills. Equally important is its larger educational goal. By providing the opportunity to shed pre-conceptions and view realistically the field of architecture, ARCFUN helps students discover their individual interests and potential early enough to make sane career choices, even if those choices lead them away from architecture.

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Management of the Building Process: A Golden Opportunity

Joseph C. White

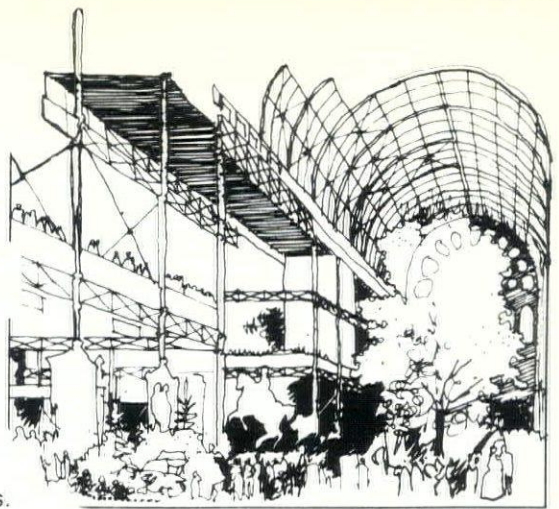
Adjunct Professor, and President of Syncon Corporation

The Chinese have the right idea; they use the same symbol for problem and opportunity.

In the building industry we have the problem — a leaderless team — a process that isn't managed. But to date none of the process participants has seen the problem as an opportunity. This is unfortunate because the need is real and is growing in intensity. There are a few hopeful signs, at least the term "management" has entered the building team's lexicon, but the real application of the term has yet to be made. The symptoms of the building problem are easy to identify. Building costs are escalating at a rate greater than that of inflation and on-site productivity is decreasing. From beginning to end, the building process is filled with frustration for the owner; it is not predictable and does not flow smoothly from one activity to the next. For managerial decisions the participants look to the one ex-officio team member who is least equipped to make them, the owner. In an industrial setting, these kinds of symptoms would call forth the following diagnosis — a poorly managed enterprise. In building the diagnosis is more severe — an unmanaged process. Over the years, building owners have tampered with the traditional method of building (design, bid, construct) in an attempt to solve the pressing cost and time problems they encounter. The design/build approach probably accounts for a larger percentage of the construction dollars spent for buildings than any other method. The owner often sacrifices quality and design excellence for time and cost predictability with this building method. On larger projects owners have turned to the Construction Management approach (and here is where the term management has entered the jargon). In the pure sense CM was supposed to mean wisconsin architect/september, 1979

management of the entire process. All too often, however, it means, as the term implies, management of the construction phase of the process leaving the front end in its traditional state of disarray. One of the reasons for some developing problems with CM is that the persons presently filling this role have never been trained to manage the process. They have come from the contractor's or the architect's ranks. An ex-contractor CM, trained as an engineer, is well equipped to manage construction but will usually fall short in managing programming and design. The front end of the process is softer, and many times the owner does not appreciate the importance of the decisions made at this early stage. A CM coming from the contractor's ranks will make decisions at the front end based on hard data such as cost when softer information relating to function, image or aesthetics should be given more weight. Conversely, an ex-architect CM usually will fall short in managing construction because he is not familiar with that phase of the work. Managerial mistakes made during construction are quite obvious. This is probably the reason that there are more ex-contractor CM's than ex-architect CM's.

Simply stated, the building industry needs a new professional — a process manager. Assigned the task of summarizing a 1976 conference on "Answers for the Building Community — Optimizing the Choices" held at the National Bureau of Standards, Attorney Ralph Nash said, "My suggestion is that there is only one set of educational organizations in the United States which are viable places to educate such a new breed, and that is: the schools of architecture . . . I am implying that a strong campaign ought to be mounted against the schools of architecture, indicating to them that they are not aptly training for the contemporary industry and explaining what are the new qualifications now needed."



Claudio Veliz

At SARUP the graduate emphasis option, Building Process, is addressing the question of educating the new professional who will one day lead the building team. Students here consider problems from the viewpoint of the owner (and hopefully, User). In their studio work they learn about process design as well as building design. In role playing games they take the part of an owner one time and perhaps a contractor the next.

They learn how to prepare a balance sheet and a profit and loss statement. They learn what it is like to be an entrepreneur since they have to set up and operate (on paper) their own company. They study the systems approach in depth. And they do enough field work to understand the present state of the industry. A holistic view of the process is constantly stressed. It is our intent that SARUP's Building Process grads will be in the front ranks of the new profession making the kind of important contribution to solving the building problem that architecturally trained individuals should make.



Design: Treated as a Verb

Robert M. Beckley, AIA

Chairman, Department of Architecture

Bucky Fuller has referred to design as a verb. Unselfconsciously the School of Architecture and Urban Planning at UWM has practiced that dictum.

We have been fortunate to have a large number of visiting faculty at the School over the first decade. A number of these visitors were funded by a grant given to the School by the Eschweiler family. These visitors have included Dick Whitaker of Moore, Lyndon, Turnbull, Whitaker, presently acting Dean at the University of Illinois-Chicago Circle; Malcolm Holzman of Hardy Holzman Pfeifer in New York; and Edmund Bacon of Philadelphia, for several decades Planning Director of that city. Soon to be added to the list is Ezra Ehrenkrantz, a pioneer in the field of "rational" building.

Each of these designers appears to be quite different in philosophy, in approach, in the context in which they work, and in the form their designs take. Yet, on reflection, it is apparent that each has held a common belief . . . design is a verb.

Whitaker's work is an expression of celebration, festival, human participation in the act of creating and experiencing architecture. Holzman's work is thoroughly researched with a great respect for both the art and science of building and the social factors which have given us some of our more curious architectural works. The movie palace is one of Holzman's favorites. Bacon, our most recent visitor, would be a composer/conductor if he were a musician. His scores would be a mix of classical techniques with space for improvisation by a full orchestra.

Bacon's recent work with twelve students from our program serves to illustrate the notion of design

as a verb. No one quite knew what to expect when Bacon arrived. The focus of the project would be downtown Milwaukee. Everyone was familiar with his book, **The Design of Cities**. We knew his love of the past and his uncanny ability to see and describe the structure and logic of significant historic places. We knew his ability to use this knowledge in his own work.

One might say Bacon is a verb. He is all action, even when sitting, coiled like a cat. The T'ai Chi exer-

cises Bacon does daily affect his movements as he stretches his arms or moves his legs in a broad stance to better address the issue at hand. His physical presence bears an uncanny resemblance to the top-hatted impresario with a cane in the foreground of Talouse Lautrec's lithographs of the Moulin Rouge, and he moves with equal grace.

Given a man of such presence one might assume that he carries with him, in his back pocket, the



answer. So it was quite natural for Bacon to confront the students, whom he would later call the "magnificent twelve," with a question. What is downtown? What might it become?

Each of the twelve had to address that question. Bacon knew very well there were many answers; we were all looking for the one. Many answers were produced. Then the search became one for commonalities, similarities, examining the width and breadth of the insights produced. The communication process began, communication first with one another, between Bacon and the other instructors, and the students. Soon we were all students, talking about solutions not answers.

Very quickly we were able to see downtown as a single organism, but not a complete organism. The parts were there to be connected but remained blurred. Another visit and Bacon had us look more closely at the parts, each to his own part. Now we had been trapped. No one could work without communicating with the others, always the vision of downtown as a whole in our minds. The whole was equally blurred, but as each of the parts took form, the potential downtown emerged.

The ideas presented were clear and appropriate. The presentation became an expression of the process. It consisted of three very simple concepts — ACCESS, CONNECTIONS, ACTIVITY-MIX — which served as the principle organizing ideas. Each student presented a piece of the jig-saw puzzle which fit into an 8 foot by 24 foot matrix representing downtown from the Courthouse to the Lakefront. Each project was complete as an idea in its own right but also complemented adjacent proposals and reinforced the three overriding

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organizing ideas. When finished, the great breadth of Milwaukee's downtown was connected Courthouse to Lake, Northside housing to Old Third Ward. Each of the twelve proposals was, in fact, a development opportunity which was currently under consideration.

Now it was possible to look back at the finished project. But the product, as seductive as large models and exquisite drawings can be, was not the design. Other projects could have been produced equally successfully. Each product would take on the unique characteristics of whichever dozen, two dozen or more "designers" would play the game if the designers were as receptive and open as Bacon's magnificent twelve. The various answers to the problems of downtown would have in common a cohesive quality, born of agreed upon principles, respect for one another's ideas, and a genuine desire to create a whole greater than the sum of its parts.

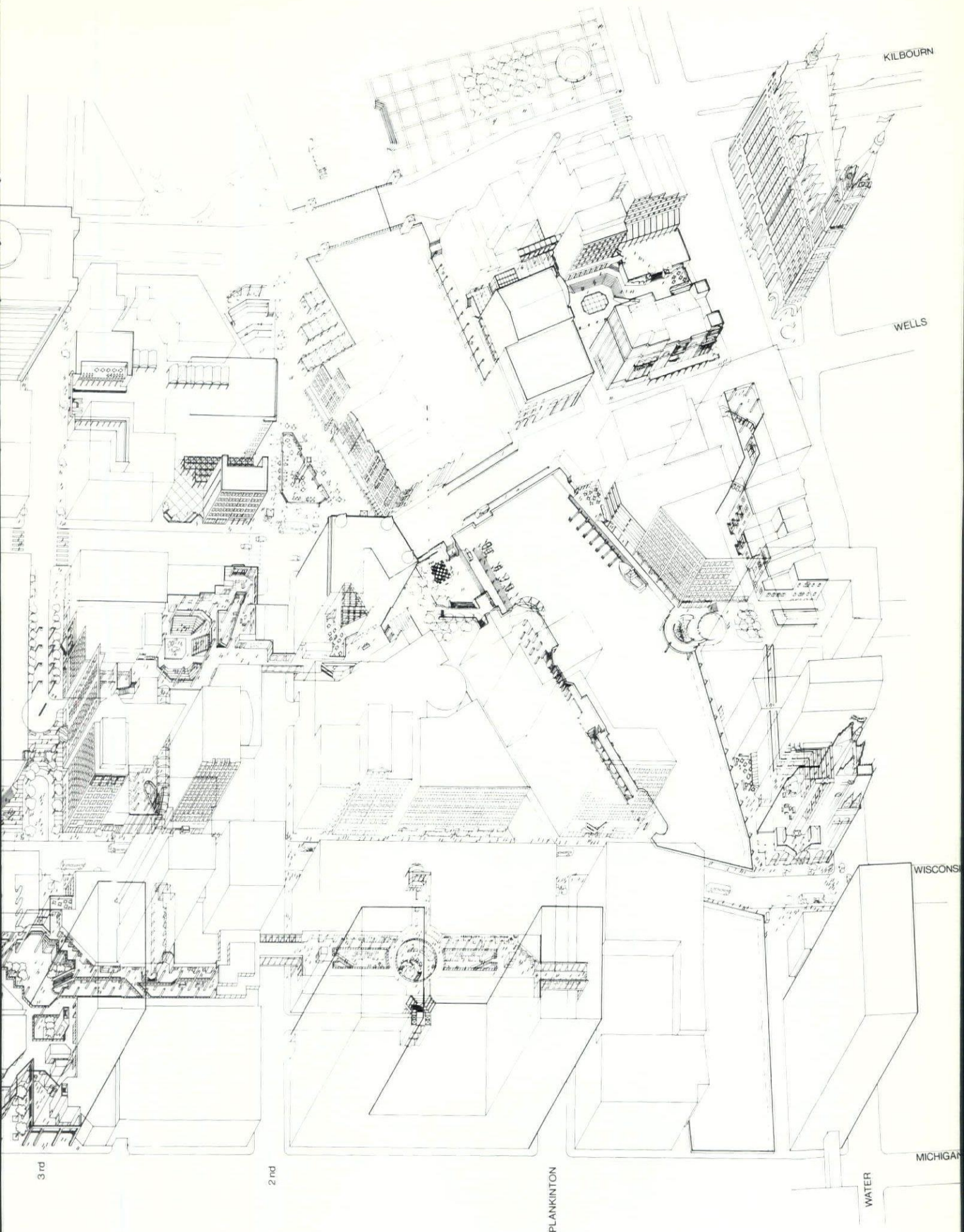
Bacon was the designer. He used design, as a verb, to create a situation in which the many talents of individuals could be used in creative collaboration rather than competition.

The experience reminded me of a tale about Leonardo Da Vinci. Soldiers had occupied a square which housed an equestrian statue of Leonardo's creation, choosing to use this statue as a target to perfect their archery skills. An apprentice rushed to Leonardo urging him to the square to do something. Respecting the apprentice's concern, Leonardo went to the square and proceeded to sketch the soldiers in their ritual of destruction. Leonardo knew design was a verb.

And, oh yes, Louis Kahn talked of a design solution as "wanting to be." Corbu called design "a patient search." We feel it's important to teach "design as a verb." We are continually taught by respected designers that it is.



DOWNTOWN MILWAUKEE



Urban Planning Today

Sammis B. White

Chairperson, Department of Urban Planning

The Urban Planning Department of SARUP was created as an independent entity in June of 1974. Many of its current faculty were brought to the School of Architecture in 1972 with the expressed purpose of establishing a planning program. After two hard years of work, the Department was chartered by the UW Regents, and faculty switched allegiance from architecture to urban planning. Three years later, January 1977, the program gained official recognition from AIP (now APA). The program now has about forty-five masters candidates and has graduated almost that many to date.

The Urban Planning Department was established with the intent of producing professionally competent planners — persons who can help to inject rationality into the formation of public policy or who can at least raise the quality of public debate.

The faculty have constructed a curriculum which stresses learning how to be analytic and how to communicate. Case studies and projects using actual situations are found in most courses. This approach injects greater reality into the educational process and allows students to see the relevance of the material in the curriculum; moreover, it shows them how the pieces tie together in practice. Usually students must present both written and oral reports, a requirement which hones their critical writing and presentation skills.

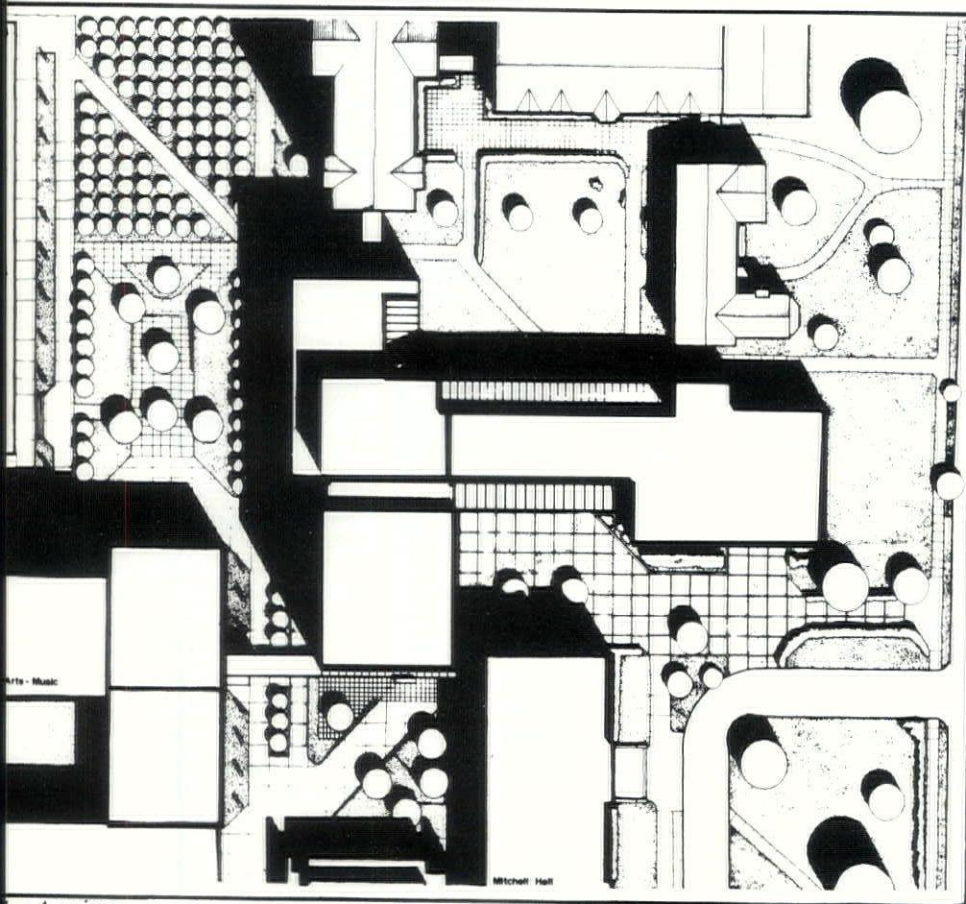
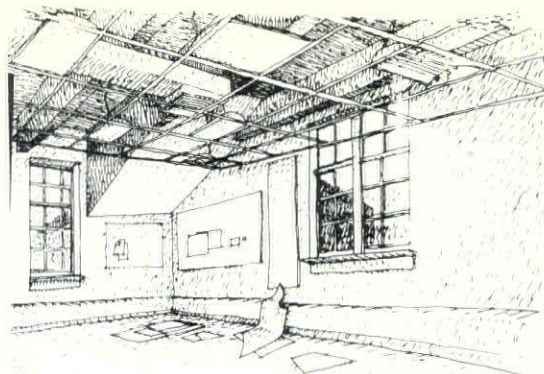
The program itself is a two-year program of 48 credits, 24 of which are in core courses. The faculty decided that a large block of time in core courses was needed both to give students who came from a variety of undergraduate majors a common vocabulary and approach and to impart to them a set of skills which can be applied to whatever

substantive areas they choose. The core includes courses in economics, planning theory, quantitative methods, program and policy analysis, and a workshop. Students can then take electives either in the planning department, in architecture or in about 15 other graduate programs on campus which offer planning-related courses. These electives can be grouped by subject into "Emphasis Areas," such as environmental planning, physical planning and urban design, housing, transportation planning, land use planning and the like. Students choose among these areas and a "general" option when making their course selections.

We characterize our program as focusing on planning and policy analysis. We have chosen not to adopt the more traditional focus on physical planning but instead to deal with a host of problems which have a spatial dimension

but do not necessarily require a physical solution. We stress learning the techniques of evaluation, be it defining a problem, choosing the most appropriate solution, or reviewing current policies or programs. When students graduate, they are able to undertake cost effectiveness, cost-benefit and fiscal impact studies. They can undertake statistical analysis of a variety of data. They can help to define a problem so that it can be successfully addressed. And they should be aware and knowledgeable about the political environment in which they are working. Some students will be more capable of dealing with the physical dimensions of these assignments than others. Which role each student wants to play is his/her choice — we do not require that they have architectural studies. A portion of every class elects physical planning courses while the others remain at a more general level. This approach has





es Aquino

allowed us to place over ninety percent of our graduates in planning jobs across the country.

The program utilizes one of its major assets, its location in Milwaukee. The city and region are an excellent laboratory, and both faculty and students get involved.

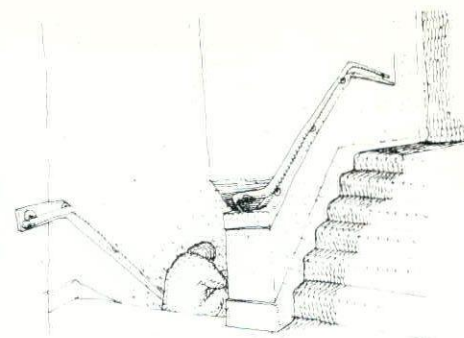
In recent years faculty and students have been involved in projects such as: the creation of a plan for the use of the 200 acre tract on the lake-front in the eastern part of downtown Milwaukee; an analysis, done for a special task force, of a variety of issues facing the Milwaukee area in connection with its massive (\$1.5 billion) sewer construction project; an analysis and plan for the possible expansion or redesign of Milwaukee's Mitchell Airport; the analysis of numerous neighborhoods in the city and the creation of plans and programs specific to their needs and conditions. The list can go on. We use the community, and, we hope, it benefits from our involvements with it.

In our future we look forward to modest growth in our master's program. We expect to have increasing involvements in funded research, particularly in such areas as water pollution abatement, energy conservation, and housing and neighborhood revitalization. We hope to have increasing impact on our community as more of our students and our graduates take positions in the area and as more persons learn of our program as a community resource. And we hope to raise the quality of public debate in whatever other communities our graduates work. We see planning as an important occupation for which a continuing demand should exist. We will do our share to meet that demand with well trained individuals from our department.

The Future of SARUP

Anthony J. Catanese

Dean, School of Architecture and Urban Planning



What can we look forward to in our second decade? We are moving towards a diverse set of high quality programs of education, research, and public service. The overall concept is that the SARUP should become a high point in the University of Wisconsin in much the same way as the schools of law, medicine, and agriculture have done so. We call this our plan for a CENTER OF EXCELLENCE.

The CENTER OF EXCELLENCE is inherently an improvement in our educational programs. A decade ago, the SARUP was created with a mandate to provide high quality education that was innovative and diverse as suits the emerging professions of architecture and urban planning. It made little sense for Wisconsin to copy the traditional architecture and urban planning programs of neighboring states. What appeared to be a wiser course was to develop non-traditional educational experiences that would provide basic skills, yet educate for the long-range development of our graduates. That is why we still provide a heavy emphasis on the studio method along with ample opportunities for technical, behavioral, socio-economic, and managerial course-work. Rather than setting our sights on becoming another good regional training school, we are aiming to become a nationally known center of excellence for architectural and planning education.

How do we improve our educational programs over the next decade? As perplexing and difficult as it may be, we must continue to evaluate and improve upon our curriculum. In architecture, we have made the decision to allow our undergraduates a wider latitude in course selection, along defined lines. We intend to make the undergraduate degree more like an environmental design curriculum with a generous liberal



education. Through better counseling and advising, we can help students into a number of fields in addition to graduate architecture and urban planning programs. To restrict the undergraduate program to solely one of preparation for the architecture profession now appears to be too narrow. Within the next decade, we see the undergraduate program as a broad environmental design mainstream which flows into various professional, technical, and scholarly areas.

At the professional degree level, we anticipate an increase in the quality of the program through the agonizing sifting and winnowing for truth which is so ingrained in the Wisconsin Idea. We are still of the opinion that faculty are a key requirement for attracting the very best students, much more so than

at the undergraduate level. Just like a University athletic team, we must recruit the very best students or they will go elsewhere. Not that we are at a loss for students: just the contrary. We are experiencing the largest student body in our history, as consistent with national trends. But a new school like ours cannot succeed by taking all students who apply. We must set high standards and carefully select students who can take full advantage of the opportunities the SARUP has to offer. Being able to reap these benefits requires a much higher level of intelligence and maturity than necessary at traditional schools which require little choice or alternatives for curriculum. Our school requires a high degree of decision-making on the part of each student to meet individual wants and needs. That is why the program is so innovative, yet complex.

wisconsin architect/september, 1979

We plan to start a doctoral program next year. While a very small program, with fewer than 25 students, we see this as a logical culmination of our move towards excellence in architectural education. The doctoral program will provide graduate architects with opportunities for coursework and original research to prepare them for careers in teaching, research, and development. We also see some spin-offs for the undergraduate program since some of these people will be helping in the studios, thus upgrading our teaching assistant quality.

The urban planning program is emerging from its infancy and should become a mature and sophisticated program over the next decade. While professional career education will remain as the basic thrust, we are now seeing that the planning process is essential to many other fields. We have already developed cooperative arrangements with other university programs for professional training in health, urban affairs, transportation, business, and public administration. We anticipate that other cooperative efforts will develop over the next ten years. Yet we also anticipate a growing recognition for so-called "service courses." These courses provide students from many fields, such as geography, political science, engineering, etc., the opportunity for a broad exposure to planning principles, methods and theory. They can then incorporate the most relevant parts of planning education into their careers.

Both the professions of architecture and urban planning have undergone significant changes during the last decade. Architects and planners today need to know about a variety of physical, social, economic, political and environmental forces that affect and interact with development. New tools, techniques and methods have been added and are emerging for their kitboxes. Yet, skill, adeptness and ingenuity, those intuitive factors, must be carefully nurtured and unleashed. That is an important part of the educational process. For that reason alone, it is wise to allow freedom in the curriculum.

Research is an important part of the SARUP, and our new CENTER FOR ARCHITECTURE AND URBAN PLANNING RESEARCH should emerge as a major, national resource over the next decade. A high level of research



activity is underway in such areas as energy, urban planning and development, environment-behavior studies, and building processes. We expect new areas to develop, and areas that are academic emphases should take on research components.

Research in architecture and urban planning is relatively new. There has been much basic research in materials, engineering, social and behavioral sciences and economics, but only recently have architects and planners been able to initiate research specifically for their fields. This trend has been incorporated into the SARUP development plan in order to provide both a basis for new teaching and applications and an opportunity for faculty development and contributions.

Public service has always been an important part of the SARUP mission. From the start the School had a mandate to make the boundaries of the State the same as the boundaries of the University — the "Wisconsin Idea." In recent years, we have formed an alliance with the University of Wisconsin-Extension in which we have provided conferences, seminars, technical assistance and advice. The activities

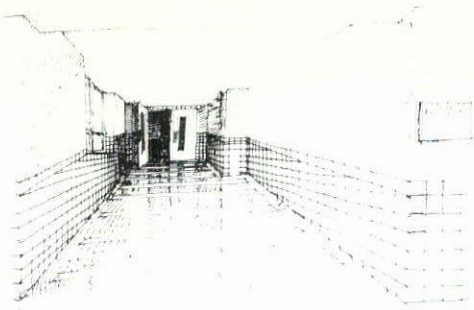
have covered over 20 small town design assistance programs throughout the State. We have offered continuing education in such diverse areas as energy, adventure playgrounds and architectural criticism, as well as basic introduction to urban planning and architecture licensing examinations. We have worked in Milwaukee's neighborhoods on such problems as revitalization, reuse and self-help.

Over the next decade, we anticipate the outreach and public service programs to become even more significant. We anticipate that the Legislature will direct UWM to reallocate its teaching surpluses emanating from declining college-age persons towards urban and rural public service as well as continuing education and so-called "new market," non-credit offerings. The SARUP will take the lead for developing creative, imaginative and bold new approaches. We intend to become national leaders in public service and outreach. We want to be the contemporary exponents of the Wisconsin Idea.

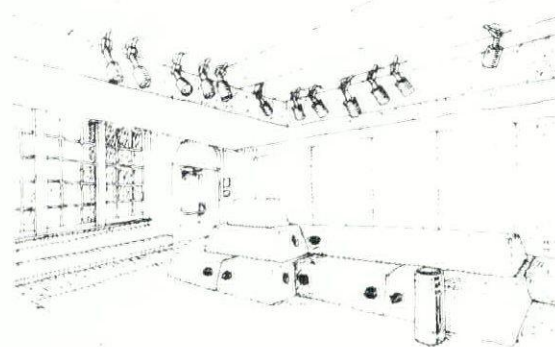
Are we overreaching, or is our plan feasible? We believe our commitment to excellence is realistic and

feasible. The plan for the next 10 years was developed over a period of two years with active participation by faculty, students, alumni and our colleagues in the University and community. It has received administrative support from the University administration, as well as political policy support from the 1979 Legislature when it approved the Governor's recommendation to designate SARUP as a center of excellence.

Excellence is not something that can arise in a vacuum. The SARUP has always worked in a real world context in the sense that our curriculum deals with real life problems. Our studio projects are based on real problems, and we rely heavily on information and case studies in Wisconsin. This necessitates an on-going interaction and cooperation with both the architectural profession and communities in the State. We already have several new initiatives underway to increase communications and cooperation in order for our students to learn more about the profession in Wisconsin.



Plans are important, but the planning process may be of greater importance. We have used the planning process to set a direction for a course of action for the SARUP. Over the next decade, there will be events, outcomes and opportunities that require changes and improvements in the plan. That is why the planning process is so important — it allows for changes of course in order to reach our destination. We think we know where we want to be in 1989, and we think we are heading in the right direction.





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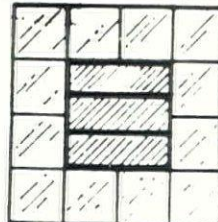


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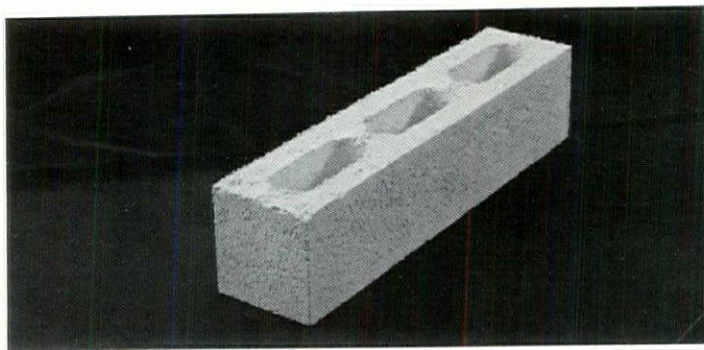
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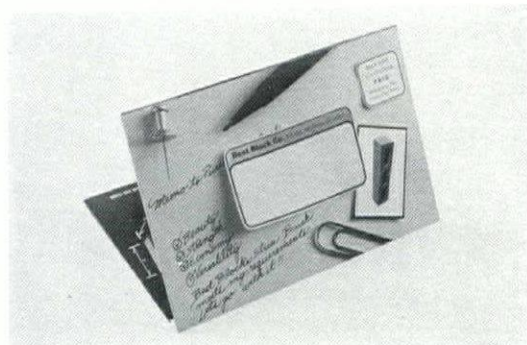
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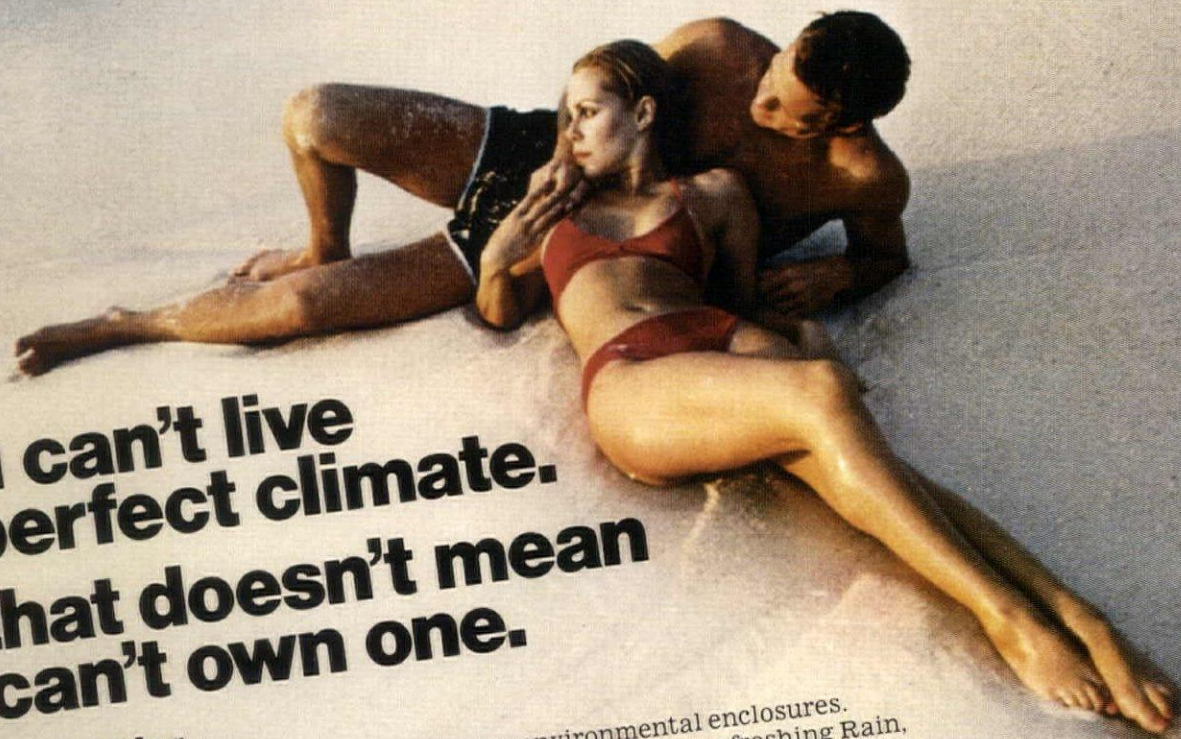
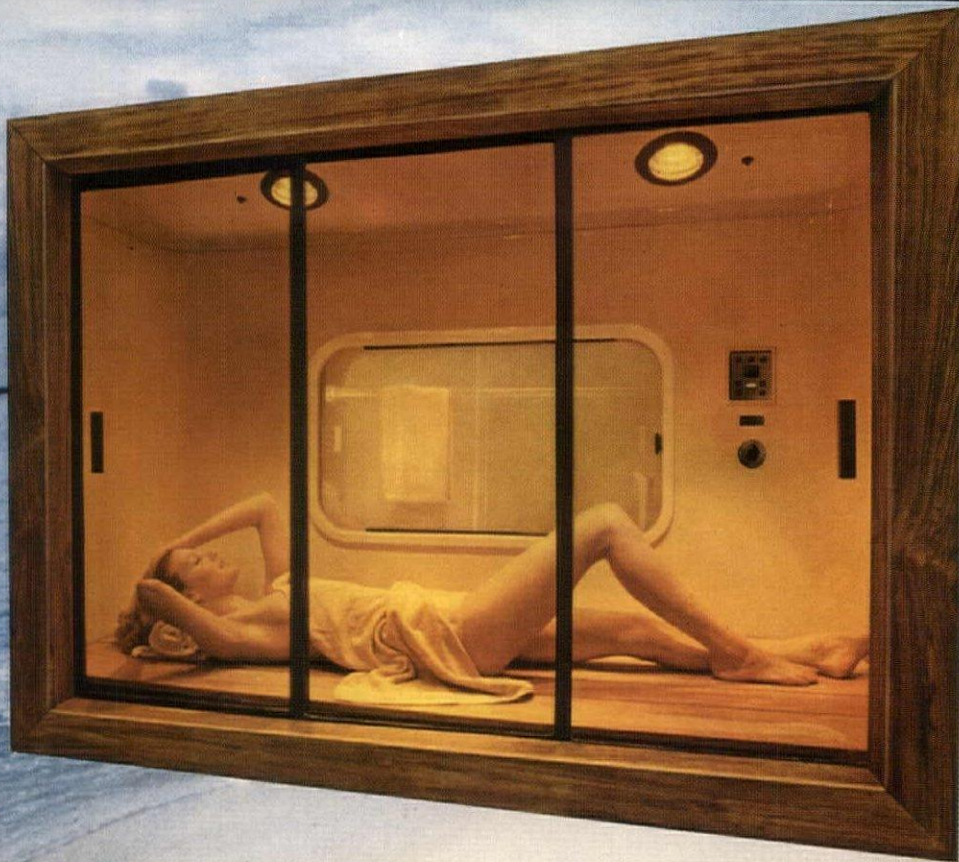
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SOCIETY NEWS

EXECUTIVE COMMITTEE ACTIONS

Glenn Johnson, AIA member of the Southeast Chapter was appointed to the BFM/AIA Liaison Committee to fill the vacancy left by John B. Hipp, AIA.

James Miller, AIA, 1980 WSA convention chairman reported that the Abbey, in Fontana, Wisconsin is the recommended site by the convention steering committee for the 1980 convention. Negotiations are underway.

A new housing committee has been authorized to function at the state level. It is being formed by WSA to assist architects doing work on HUD, FHA and WFHA work. Special concerns will be liaison and free negotiation.

Save October 11th for the Fall Workshop at the Mead Inn in Wisconsin Rapids, Wisconsin. Chairman Fred Zimmermann has invited four top designers to speak. Watch for the special flyer.

Legal counsel, Eric Englund, reported that the administrative rules for architects/engineer selection formulated by the BFM/AIA Liaison Committee became law on August 1, 1979 and must be adhered to. Firms will be selected on the basis of professional ability and expertise and a fee will be negotiated after the selection process.

Englund, along with Governmental Affairs Chairman, David Lawson, AIA, appeared at a recent hearing of the Examining Board in opposition to a proposal to drop NCARB examinations in favor of an exam written in Wisconsin only. WSPE, NCARB, a student and an engineer also appeared in opposition to the change. Cass Hurc, Secretary Emeritus of the Examining Board appeared in favor of the proposal. NCARB is in the process of doing a validation study and task analysis study of the national exams similar to the process that Wisconsin has followed. The WSA position is that Wisconsin hold off for a two year period until NCARB has completed their study.

PEOPLE AND PLACES

Herb Gausewitz, AIA, formerly with Reinke, Hansche, Last, Inc. of Oshkosh is now with the firm of Torkelson and Associates, Inc., Madison.

Root and Brink have moved their offices from 4414 Regent Street to 4506 Regent Street in Madison.

Sherer and Sherer Architects, AIA, is the new home of the firm formerly known as Brielmaier, Sherer and Sherer, Milwaukee.



Pictured are six of the WSA delegates to the national convention in Kansas City in a photo recently received from Dave Lawson, AIA.

Shown from left to right are: Walter E. Zoller, AIA; John B. Hipp, AIA; David P. Brust, AIA; Noble E. Rose, AIA; Alan Carlson and Associate Member Jerome Brewster.

Two past presidents of the Wisconsin Society of Architects have been appointed to commissions in Madison by Mayor Joe Skornicka. Nathaniel Sample, FAIA, was appointed to the Dane County Regional Planning Commission and Richard Shutter, AIA, was appointed to the Urban Design Commission. Richard Shutter replaces Ron Bowen, AIA.

NEW ARCHITECT IN RESIDENCE PROGRAM STARTS IN WISCONSIN

For many years the National Endowment for the Arts has sponsored an Artist-in-Residence program in elementary schools throughout the country. Now jointly sponsored by the Wisconsin Arts Board and the National Endowment for the Arts, the Artist-in-Residence program has an architect component. The first school district to seek an Architect in Residence Program is the Stevens Point Public Schools. The purpose of the Architect-in-Residence Program is to help children and the community they live in to foster a better awareness of the built environment as it works in concert with the natural environment. The Environment Education Task Force of the Wisconsin Society of Architects has been involved in looking at programs such as this to give more visibility to built environment education. The Task Force, under the Chairmanship of Douglas H. Smith, AIA, has been reviewing a variety of built environment programs such as this,

along with possible legislative initiatives. The National AIA committee on Environmental Education and the AIA, support involvement by the state organizations in such a program. Alan Carlson, our Executive Director, currently serves on the national committee. Below is a description of the job of an architect in residence as reported by the Wisconsin Arts Board. It describes the related program Artist-in-Residence for comparison.

Job Description Architect-In-Residence

The Artist-In-Residence Program

The Artist-in-Residence program places professional, practicing artists in educational settings so that students, teachers and community people may come in contact with and learn from this resource. AIR seeks to enhance and underscore the value of the creative experience in education. Participating artists do not function purely as teachers but as professional practitioners of their discipline. The AIR program has been bringing artists into Wisconsin schools since 1971.

The professional architect comes to the school as a special guest who has talents and expertise to share. The architect is not a member of the teaching staff, but a leader of workshops, teacher in-service courses and special community projects. The relationship between teacher and architect is a cooperative one; professional to professional.

Residency Activities

Residency activities are designed to meet the needs of the school and the interests of students and staff in the area of architecture and environmental design. These activities are also complemented by the particular areas of expertise of the resident architect.

Structurally, a typical week of the residency would include 2-3 days of the architect working directly with students, staff and community people in various formats — workshops, in-services, field trips, one to one work, etc. The remainder of the week would be utilized by the architect to work on his/her own projects and activities in the office/studio space provided by the school. Students and others would be able to observe the architect at work in order to question and learn about the processes. An architect-in-residence would help participants to analyze their surroundings and actively participate in the design or redesign process, and to develop an awareness of the built environment and its relationship to the natural environment.

ARCHITECT'S FEE: \$11,700 for a total of nine months.

Applications for the 1980-81 school year must be received by the Wisconsin Arts Board by November 1, 1979. To make application, send resume with supporting materials, slides and representative work to:

Mr. Jack J. Guzman
A-I-R Program Assistant
Wisconsin Arts Board
123 West Washington
Madison, Wisconsin 53702
Phone: (608) 266-9737

Along with the resume include the list of activities you might offer as an architect in residence in an elementary school environment.

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BOOKS

The Architect as Developer by John Portman, FAIA, and Jonathan Barnett, AIA, AIP, McGraw Hill Book Company.

John Portman skyrocketed to international fame with his Atlantic Regency Hotel and the magnificent Embarcadero Center in San Francisco as well as other new kinds of multi-million dollar developments in which he is the real estate developer as well as the architect. Jonathan Barnett is a well known urban designer as well as educator.

This handsome, relevant book tells with such warmth and humanity of the philosophy behind developing a successful, exciting urban environment. And then, with equal ease and eloquence, gives a review of the development process including a short course in feasibility analysis and explains why the architect should combine architectural design with real estate development. According to Mr. Portman, all too often by the time the architect enters a project, the most important decisions have been made.

He says:

For a coordinate unit to succeed, it must lift the human spirit . . . In addition to providing places for work, residence, shopping and recreation it must draw on . . . a strong sense of order complemented by a variety of incident and unexpected change; light and color, nature and water to soften the constructed environment and make it more humane.

— Betty Mead

**MEMBERSHIP
ACTIONS**

The following membership actions were approved by the Chapter Officers of the WSA/AIA and The Institute:

WILLIAM K. DAVIS, AIA, was readmitted to AIA Membership in the Southeast Wisconsin Chapter;

JAMES C. REUSS, AIA, was approved for AIA Membership in the Southeast Wisconsin Chapter;

E. MITCHELL SPENCER, was approved for Associate Membership in the Northwest Wisconsin Chapter.

**ARCHITECTURAL
REFRESHER**

An **architectural refresher**, for those persons planning on taking the professional examination in December, will be offered through the Department of Architecture-Extension Programs, University of Wisconsin-Milwaukee. The refresher will be held Friday and Saturday, November 2 and 3, 1979 for a fee of \$50.00 for the 2 day program. For additional information or registration forms contact: Professor Douglas Ryhn (414) 963-5336 or 4014.

**AIA
LAUDS
DEFENSE
DEPARTMENT**

The American Institute of Architects has commended the Department of Defense for reactivating its annual DOD Design Awards Program and has responded to requests from the Air Force to improve its four-year-old design awards program through close collaboration and professional assistance.

AIA President Ehrman B. Mitchell Jr., FAIA, pledged the Institute's support for DOD efforts to recognize design professionals "who meet and exceed the challenge to produce quality architecture for the Department of Defense."

For more information, contact Steve Biegel, director of the AIA Federal Agency Liaison Program, AIA headquarters, 1735 New York Ave., N.W., Washington, D.C. 20006, 202/785-7382.

**INTERNATIONAL
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How architects respond to human needs through community participation in the design of educational, sports, and leisure facilities will be explored during an international architectural seminar at The American Institute of Architects, Sept. 23-27.

Entitled "Community Participation in Comprehensive Social Facilities," the conference is sponsored by the Union Internationale des Architectes (UIA) with the support of UNESCO and the AIA. It will identify the various social, economic, and environmental pressures that are shaping the architecture of both industrialized and developing nations.

For information on the seminar, contact Barbara Mendelssohn at AIA headquarters, 202/785-7238.



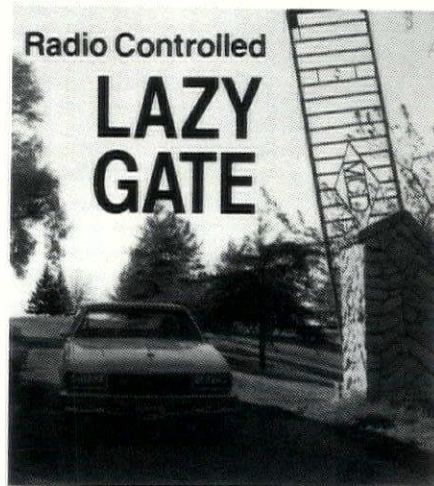
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— CORRECTION —

The firm of Charles W. Yoder & Associates was incorrectly identified as Architects in the presentation of the Pabst Warehouse & Distribution Center. The correct identification should have been Charles W. Yoder & Associates, Engineers.

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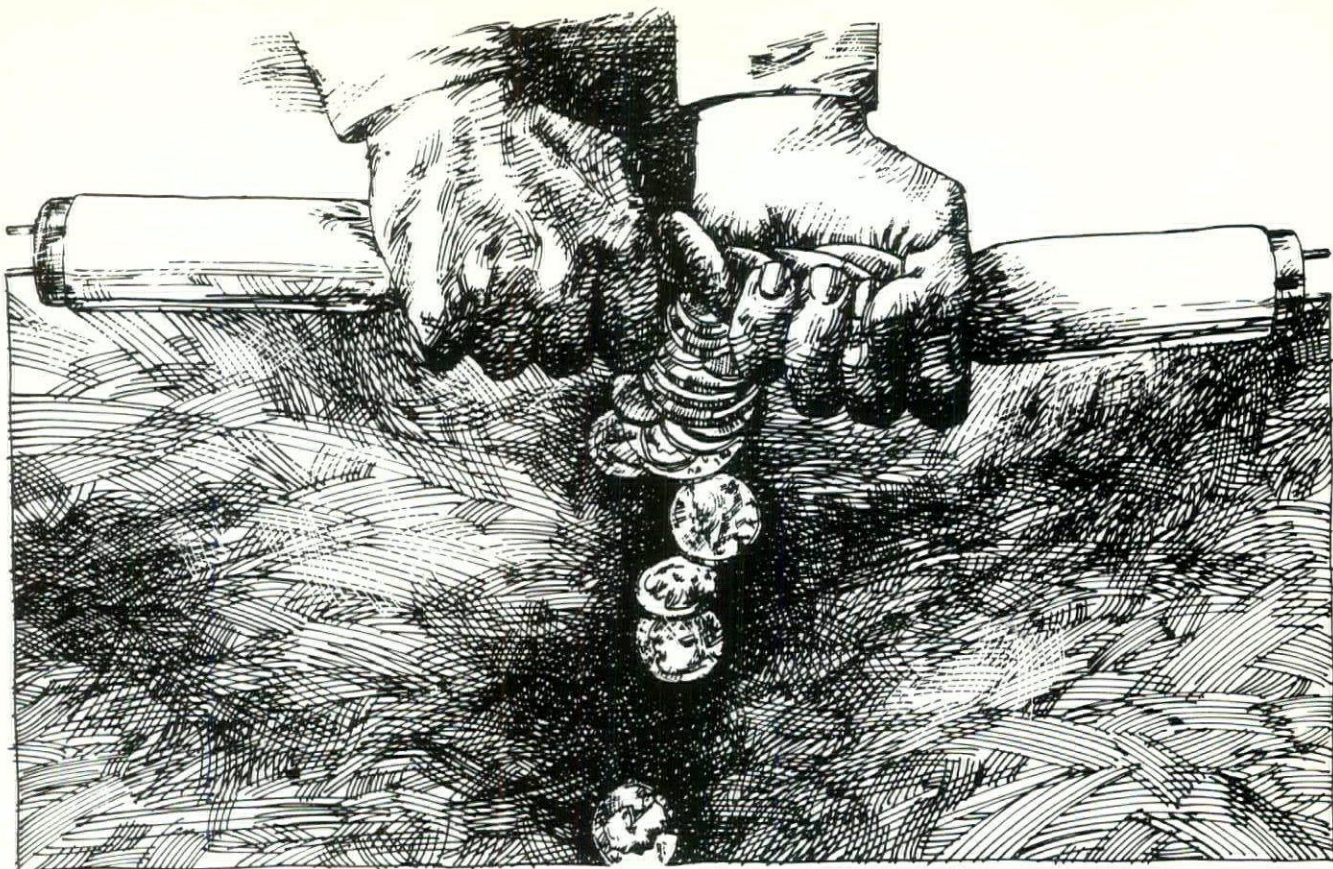
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